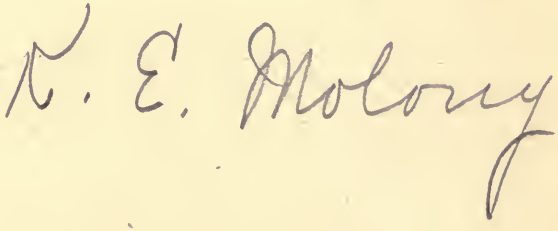

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WHENCE, WHAT, WHERE?

A

VIEW OF THE ORIGIN, NATURE, AND DESTINY OF MAN.

BY

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PREFACE.

No subjects of thought so earnestly press upon the minds of intelligent readers and thinkers at the present time as those which relate to the genesis of man, his material and spiritual nature, the event of death, and the life hereafter. I have learned from a wide association with active business men, as well as with scholars and thinkers, that none are too busy or too much engaged in life's affairs to fail to read and converse upon these topics. It is due to conversations with business and scientific friends in hours of leisure that this little book appears. In yielding to their solicitations to put in print thoughts often privately expressed, I do an act not unattended with doubt and hesitation. It contains views well known to many, who,

as guests and friends, have by their social and intellectual qualities added much to the pleasures of a rural home. These essays present but the briefest outlines of great themes; themes which have engaged the attention of cultivated minds in all ages. Whatever may be new in them relates to the independent method of treatment of the topics, and to some opinions of the nature of spirit and the conditions of a future life.

Facts in science have been arranged so as to present whatever testimony it is capable of affording; and the teachings of the founder of the Christian faith have been given that prominence and authority to which they are undeniably entitled. It must be admitted that science has its unwarrantable assumptions and dogmas as well as theology, and those of the one should be as cautiously accepted as the other. The testimony and teachings of science upon the topics considered have been plainly presented, and, so far as pos-

sible, without its formulas and technicalities. As it is now well understood, even by ordinary minds, that theology is not religion, and that creeds are the work of men, but little weight has been given to either in this discussion.

In a former age, when an exacting ecclesiasticism dominated over ignorant and servile populations, men were swayed by fear; their minds were filled with images, distorted and diabolical, like the gargoyles which looked down upon them from the copings of the old cathedrals. Now, men think, reason, analyze; and views are held upon religious and spiritual matters which are formed from independent study of the teachings of the Divine Master.

It is probable that some of the views presented, particularly in the four last chapters, will not be in harmony with those of all readers; but there is good reason for believing that many Christian laymen and ministers will in private thank me for bringing to view the indefensible nature of

the doctrines found in church creeds; doctrines which they have long wished might be eliminated.

Much embarrassment has been felt in endeavoring to make the essays concise and still preserve continuity and completeness. They are indeed but outline thoughts which may be extended at a future time, if it should appear desirable.

J. R. N.

HAVERHILL, MASS., November, 1882.

NOTE

TO THE THIRD EDITION.

THIS little book, privately printed by the author for distribution among business, professional, and family friends, has from force of circumstances fallen into the hands of a publisher. Almost immediately upon its distribution, a demand arose for the work which could not well be resisted, and a second edition was published which speedily found purchasers. These editions were printed under unusual disadvantages, and without opportunity for revision by the author; consequently they contained many typographical errors and blemishes.

The third edition has been printed from new and larger type, and the work has been carefully revised. Alterations have been made in a few of the pages, which, without changing the sense, add to the clearness and perspicuity of the style; also, additions have been made to the title-page.

The warm, sincere commendations of the book which have come from a large number of scholars and thinkers, and from clergymen of all denominations, are certainly gratifying, and lead to a willingness that it should be more widely known.

The fact that in the short period of a few weeks two editions have found purchasers, is significant of the intense interest which centres around the topics which are discussed in the work. The suggestion of many readers that several of the subjects should be enlarged in their scope will receive consideration.

FEBRUARY, 1883.

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THE GENESIS OF MAN.

HUMAN beings find themselves existing upon a small planetary body whirling through space, but whence they came is a baffling mystery. Save in the Hebrew chronicles, no book, however ancient, affords any account of the genesis of man worthy of consideration; and no tracings on rocks or metals, no inscriptions or picturings in any part of the world, furnish a clue to the solution of the dark problem of the origin of the race. Those strange visitors from the celestial spaces, the meteorites, which are projected glowing with heat upon the crust of the earth, can give as ready answers to our questionings as the most learned philosophers. Like ourselves, they come out of the unknown, and in studying their history we experience

emotions akin to those which result from the study of the history of our own origin.

Leaving the matter of the so-called Mosaic account of the origin of the race for consideration at a point further on, it remains to inquire what science has accomplished in its researches upon the great problem. In no department of human inquiry has a larger amount of labor been expended or more exalted talents enlisted; and the outcome, although unsatisfactory, is very interesting. It cannot reasonably be questioned that man has been a resident upon the earth for a long period of time; a range of centuries, perhaps, which carries us back to the Palæolithic age. The evidence that he lived in Switzerland in the Neolithic or Stone Age is quite conclusive. The clothes, polished stones, and household objects found in the lake dwellings show that he was considerably advanced in civilization and in a knowledge of the ruder arts in that epoch. He cultivated wheat and barley, and made bread; and,

what is very remarkable, he evinced a taste for the flavoring aromatics by putting caraway seeds in his bread. He kept domestic animals, — cows and pigs, sheep and goats, — and lived, probably, somewhat as many of the inhabitants of Ireland live to-day. Several kinds of horses existed in the Neolithic period, all small in stature, and there were two breeds of oxen, also small. The sheep had horns, and the goats carried immense protuberances of this nature upon their heads. The men varied from four to five feet in height, and their faces were oval, with probably not unpleasant expressions of countenance. They were rather weak and inoffensive, not specially prone to war, but living under circumstances which afforded the highest protection from the rapacity of neighbors. These interesting facts are learned from researches made in connection with the lake dwellings of Switzerland, and as they are sustained by the most indubitable testimony must be admitted as facts. But as has been intimated,

it is highly probable that the genesis of man extends to an age still more remote. As we recede, however, into the darkness of early geologic times all traces of him are lost, and although the fossil remains of strange reptiles and animals are plentiful, fossil man is missing. No coal seams, or strata of ancient sandstone, reveal in hardened lines his noble, upright form.

Nothing whatever is known of the *time* of man's advent. We may speculate and pile hypothesis upon hypothesis, but we are not thereby introduced to any clearer light. The researches of archæologists, ethnologists, geologists, biologists have been well-nigh exhaustive, and unless new discoveries are made barriers to further knowledge have been reached. If the advent of man was sudden, and he came perfected in physical form, he is certainly not contemporary with the higher forms of other animals; and the break in the chain of animal life which connects the earlier with the later geologic periods, in

which man fails to appear, is not confined to the space covered by a single link. He has left no traces of his presence beyond a period which, in contrast with the length of geological epochs, is indeed recent. If he has been evolved slowly from lower forms, we still have no traces of him in any of the stages of partial development. There is, however, a strong and significant array of analogies, correspondences, and facts which give force to the views of the evolutionists, and these are worthy of consideration.

The word *evolution* means the birth or derivation of beings from others through the action of natural laws; its whole meaning is not that man is evolved directly from an anthropoid ape, but that in nature there is a law by the action of which the lower forms of organic life and inorganic substances are slowly changed, until through endless modifications the highest types result. This law of evolution reaches and controls every department of nature, and

to its dominating influence we are indebted for moral and intellectual as well as for physical qualities. It is evident that there is in nature a constantly recurring relationship among all creatures, and that in heredity we have absolute proof of the fact that like tends to produce like under all circumstances. It is due to two causes that variations occur: one is the law of heredity; the other, the surrounding influences, or the sum of the physical influences upon the organism. The first tends to preserve uniformity; the second modifies the action of the first. Very much importance is attached to what is regarded as a newly-discovered or recognized law, — that of natural selection. This law asserts that some individuals are stronger or better fitted to compete in the struggle of life than are others of the same species: hence they will live and perpetuate their kind, while others die out. No one has successfully combated this plain, palpable provision of nature, or can deny its great in-

fluence in elevating animal existence upon our planet.

If the doctrines of evolution and natural selection be accepted, we still wander in darkness as regards the origin of life. If these doctrines are based upon fundamental laws, it is clear that a law has not yet been found which accounts for the beginning of organic life, or which explains how dead matter became endowed with vital activities. No law has been found which accounts for the *origin* of the variation in species. When we attempt to span the enormous epochs of time which it is conceded must elapse in bringing man up from the lowest organic forms to his present exalted condition, a sense of dissatisfaction is experienced, not only because of the difficulties which beset the way, but because in all our anxious gropings we cannot find the starting-point. One end of the chain we see, but the other end is hidden in thick darkness. If we only knew how ascidian or still lower forms

were evolved from dead rocks, there would be some light thrown upon the foggy end of the chain. Life can only evolve life; a rock cannot evolve an egg, or supply warmth to hatch it when evolved from life sources. It is possible for man to bring together in accurate measure the chemical constituents of an egg, but by no possibility can he supply the mysterious vital principle, or bring life out of his mixture, although he may comply most carefully with all the known conditions under which life is supposed to be produced. In no way is it possible for one to escape from the conviction that the chasm which separates the organic from the inorganic, life from death, is a broad one, and no research has penetrated or crossed the rayless gulf. Compared with the difficulties in assuming that life is spontaneous, a natural result of the continuity and cooperation of natural energies, the evolution of man from primal forms is easy of belief. The views so clearly presented to

the world by the late Mr. Darwin are not to be controverted by ignorant prejudice, or demolished by exhibitions of passion or conceit. He was unquestionably one of the most learned and remarkable men who have lived in any age of the world. His views are not accepted by all naturalists, and if they were it would not remove them from the field of hypothesis to that of fact. The impatience of many, when his views of the origin of man are advocated, savors more of the dogmatism of interested belief than of the judicial earnestness and fairness which result from careful and competent investigation. The Darwinian hypothesis is so very easy of application, and so in accord with the wishes of many investigators in science, that it is too readily adopted, often without the preliminary caution of rigid analysis of the facts.

The great mind of Darwin, while these pages were in preparation, was freed from its material environment, and passed under the new conditions of existence which

await all other minds. His mental nature, subjected to the highest culture and the most exacting discipline, enabled him to see clearly many of the intricacies and laws of the universe which are hidden to others. It is probable that the entanglement of gross matter with the spiritual man was far less obstructing and obscuring in his case than in that of most others, for greatness to a large extent consists in the facility with which thought rises independent of its low environment, and frees itself from its control. Under the new conditions of life to which he has passed it is more than probable that the baffling problems which occupied his mind here are now very clearly comprehended. He has not gone outside of the great universe, for no outside is possible; he has not been released into a realm of endless night, for light and life are everywhere; he was not buried forever with the separating atoms and molecules of the body, for mind, like matter and energy, is imperishable.

After a careful study of the views of evolutionists, and a full recognition of the force of the ingenious and wonderful array of facts and theories, we are forced to come back to the more reasonable ground, that man has two natures, clearly defined, and both tending towards distinct ends, — one perishable, the other imperishable. There are not insuperable difficulties in the way of understanding how man might be evolved physically from lower forms, but no stretch of the powers of comprehension enables one to conceive of the evolution of *mind* from primitive forms, and there is no chain of facts which lend reasonable coloring to such a belief.

Mind has come up apparently from a very low condition, — how low we do not know; but this is certain: the mind of man, so far as any traces of its action are discernible, has always exhibited enormous superiority over that of the highest of the animal races. There is, in fact, so far as our powers of analysis guide us, no close

analogy existing between the mind of man and the instinct of animals; their mental capacities are limited; man's, in finite matters, has no limit. The mind of man is the great overpowering force in the world, a principle dominating everything. No form of energy acting under law has escaped its control, no physical forces have become its master; they all combined bow to its behests, and become its servants. It must be a supernatural principle, a distinct creation, a divine essence, a mighty force, standing apart, and designed to stand apart, from all the other forces of nature.

Mind in its almost supreme control over matter meets with barriers when it essays to perform creative acts. It has succeeded in evolving out of passive forms of matter energies which are destructive and appalling; it has changed the gentle warmth of our firesides into forms of electrical force, capable of moving ponderous machinery, and it has given it wings and endowed it with mute intelligence, so that it conveys

messages of instruction, congratulation, warning, joy, and love with a rapidity which practically annihilates time and space. Out of the common sand of the sea-shore it has constructed prisms and lenses as clear and beautiful as nature's proudest gems, and so arranged them in tubes of metal that the heavenly bodies are brought as it were into the laboratory for analysis, and the minutest forms of life hidden in the earth and air are revealed to the eye with the utmost distinctness. It has separated water and solids into gaseous conditions, and mingled them with the winds; has isolated and recombined rays of light so as to form the most gorgeous pictures; has forced the sun to serve as artist, and paint portraits and landscapes; has extracted from the filthy residuum of the gas manufacturer colors more beautiful than those of the rainbow; has synthetically combined molecules of inert matter so as to represent organic products of the highest complexity. All this and much more

has mind accomplished, but it has never been able to create a new element or add a single atom of matter to the primitive mass of earth and air.

Whenever man has experimented with the view of so arranging matter as to evolve from it life, signal failure has attended his labors. The belief which at one time prevailed, that from liquids and sterile infusions, placed under favoring conditions, life is spontaneously produced, has now few supporters among men of research. Dr. Bastian, who experimented over a period of many years, and who persistently maintained that from his infusions bacteria and other forms of life were spontaneously produced, has been confronted with the careful and protracted researches of Tyndall and Pasteur, and his alleged successful results have been disproved. Tyndall, to escape from the germ-charged air of cities and populous districts, fled to Switzerland, and on the highest mountain peaks conducted his experiments. The results con-

clusively proved that the development of life in Bastian's infusions came from germinal nuclei in the atmosphere, as absolutely sterile liquids exposed to the pure air of high altitudes remained sterile under the most favoring conditions. Pasteur confirmed Tyndall's results by a long series of careful and trustworthy experiments. Man is thus shown to possess wonderful capabilities in controlling and changing matter, but the power of *creating* is a prerogative withheld from him. His agency in reproduction is no more direct or exalted than that of the lowest animals and reptiles. The reproductive instinct is given not only to all living forms of animals and insects, but to plants as well. Its exercise requires no training of the intellect, no elevation of the moral faculties; savage man was as capable of covering the earth with a race of men, ignorant and debased, as is the most civilized and cultivated people with one elevated to a higher plane. Modify or remove the overmastering reproductive

instinct in animal and vegetable organisms, and all forms of life would at once cease. It is the strong chain which binds the animate to the inanimate, — a chain whose links are of steel, which no power short of that of the Infinite One can break.

The embryotic changes resulting in the development of man, research has shown to be in no regard dissimilar to those which result in introducing into the breathing world the lower types of mammals. He is born helpless and absolutely dependent upon those through whose natural agency the spark of life was engendered ; and like all animals is indebted for his preservation to the overpowering maternal instinct bestowed through a wise controlling power higher than that of man. Every stage of man's progress towards full development from the microscopical cells of the latent germ is marked by a superintending agency which must be divine. It cannot be denied that it is all accomplished under law, but the laws themselves are miracles of wisdom — a wisdom not born of earth.

Science does not concern itself with the statements regarding the genesis of man, as found in the sacred books of ancient tribes and nations, only so far as to subject them to the most rigid rules of historical, archæological, and biological criticism, with the view of ascertaining what plausible grounds they have to rest upon. The ancient Hebrews have preserved records in which is found a circumstantial account or history of man's advent, and the world has for nearly twenty centuries been largely influenced by a belief in this remarkable narrative. Whether it be regarded as a legend of very early times, a story characteristic of the East, or as a supernatural revelation of man's genesis, the student or investigator cannot but view it as extraordinary. If we are required to accept it after ecclesiastic or scholastic interpretations, which place the occurrences about six thousand years ago, and which insist upon a literal rendering of the text, the way is beset with difficulties. If, on the

other hand, the narrative be regarded as a dim shadowing forth of the outlines of a creative act, instituted by divine interference in some early epoch of the world's history, it at once commands the respect of those who recognize the existence of a Supreme Creator in the universe.

There is in the narrative certain internal evidence, which, independent of all other considerations, lends to it a startling significancy. The prominent incidents of the transaction so briefly presented are wonderfully in accordance with possibilities, or, there is evidence of a wise adaptation of means to ends. We are told without any show of hesitancy that man was made out of the "dust of the earth;" that is, he came from the same general mother or source as all organic life. If the statement were that he was formed out of the rocks or out of the trees of the garden, it would be far less significant of his true chemical constitution as made known through modern research. Rocks and trees are not

so constituted as to meet fully the necessities of his material organization, and the same may be said of quite all the substances or prominent objects which were open to observation in early times. In the "dust of the earth" we have an expression which may fairly be interpreted to mean the *soil* of the earth, which includes both the organic and inorganic constituents found in the physical organization of man. In this material we have the lime, potash, soda, magnesia, iron, phosphorus, indeed quite all the chemical bodies essential to man's organism. In the humus of the soil we have the materials needed for the formation of living tissues, the carbon, hydrogen, and nitrogen. The source from which man is stated to have been derived is seen to have been fully capable of supplying every needed element without the interposition of a miracle to summon the rarer molecules from afar. A human narrator of such a stupendous transaction would hardly have allowed his excited imagination

to go no further than common dust for his man-material ; he would have selected the clear air about him, the chemical nature of which was to him a mystery, or he would have interwoven the rainbow or the gorgeous hues of the setting sun into the noble form of man.

After the completion of the physical structure, a still more important act remained to be accomplished, — the endowment of life. The narrator proceeds to say that "God breathed" into the figure of man "the breath of life." This language and statement is even more remarkable than that relating to the formation of the body. From what we know of the mind or soul of man, we cannot give it a lower place than is assigned in the narrative ; it must be the "breath," or an emanation from the Creator ; it must be the closest, most distinctive representation of the Supreme Intelligence of all principles in the universe. It is infinitely higher than matter ; it is a part of a Divine originator.

If this were only an Eastern tale, told by an ancient story-teller, he would have given life to his figure by agencies far different; the statement would be much too tame to meet his own inclination or the wishes of his listeners. He probably would have conferred life by placing the inanimate form in a running brook, in a position so that the clear morning light might afford supplementary aid in wooing the mysterious principle sought. He might have covered it with flowers, and pressed into the open mouth the rarest juices of plants, and fanned the nostrils with air charged with the rich aroma of flowers. Whoever wrote the first chapters of the book of Genesis, it is certain he was no ordinary chronicler; he was destitute of the gorgeous imagination so common to the authors of the legends and tales of the East, and was clairvoyant in a high degree. He must have had whisperings from unseen sources, and been directed by a wisdom not common to the men of the times in which he lived.

The story of the genesis of woman is held to be even more fanciful than that of man, but it is not difficult to detect in it those points of difference which separate the tale from the wild imaginings of the wisest of the early Hebrew chroniclers. The relations of the sexes are, by the proceeding of forming the woman out of man, declared to be more direct and intimate than that of any other; and whatever was desirable and wonderful in man, woman must by her origin be possessed of. The narrator did not regard it as necessary to go again back to the earth for materials from which to form the woman, nor was it necessary for Jehovah to inflate the lungs by his breath; like is assumed to be competent to produce like, and from the physical man woman was formed.

What is called the Mosaic account of the genesis of man, taken as a whole, must be regarded even by evolutionists as remarkable. Whether it is designed

to present the details of actual occurrences, or whether the story has a typical significancy, a figurative meaning, is not clear. If its whole scope and intent is to reveal to races of men in all ages the fact of the supernatural origin of man, considering the circumstances under which the narrative was presented, and its influence upon those who were to people the earth thousands of years after the ignorant Hebrews had been resolved back to dust, it is not easy to see what statement could better serve its purpose. It has no force, viewed as a strictly scientific problem, and finds no place in purely scientific literature, but it does command the respect and enlist the interest of some of the most competent scientific investigators of the age.

THE MATERIAL MAN.

SCIENCE must be regarded as a dumb oracle when consulted with regard to the genesis of man. Positive knowledge begins with the study of the embryo, a principle brought into existence along with him at the time of his advent. The first surprise which startles the investigator is the extreme minuteness of the physical point from which man commences. There is here apparently a marvellous exhibition of inadequacy of means to ends. That man, proud of his physical stature, and of his superiority over the animal kingdom and the forces of nature, should start from ova infinitely smaller than that of the smallest bird, is a consideration well calculated to arrest the attention. The human ovum is

so small that it is covered by the point of a common pin, and the microscope must be taken in hand for its study. The calcareous shell of the egg of a humming-bird has sufficient capacity to hold enough of the human life germs to people a city, and the shell of the egg of the ostrich to cover a continent with inhabitants. It is well to remember in considering the minuteness of man's material beginning, that the egg itself is not the *germ*, the point where life begins, but the vessel which holds it. The study of the germ brings us face to face with molecules of matter held in a single cell, so minute that the highest powers of the microscope are scarcely adequate to reveal it.

The germinal principle of the egg is only gross matter, oxygen, nitrogen, hydrogen, etc., and left to itself, is as inert as molecules of silex or calcium. It requires the juxtaposition of two forces to bring to view the miracle of life. A female barnyard fowl, living apart from those of the opposite sex,

will fill her nest with eggs, but the maternal warmth, however zealously conferred, does not result in filling the barnyard with chicks. The eggs of the maiden fowl receive the warmth, but unprotected by the life principle, it only hastens chemical decomposition, with the evolution of disgusting gaseous compounds. There is inherent in man the almost divine power of conferring upon a few molecules of matter so small as to be entirely beyond the reach of the unaided eye his own living identity. Upon a point infinitesimally small the physical characteristics and mental peculiarities of two distinct families are indelibly stamped, and this touches so closely upon the border land of miracle that we are scarce able to discern any intervening space.

Heredity is so wonderful in all its aspects, and extends to such minute points, that we are indeed bewildered by its study. A distinguished scientific friend, in conversation upon this subject, called my attention to

the raised lines and grooves upon his thumb-nail, and stated that the same lines and grooves were distinguishing marks upon the right thumb-nail of his father, grandfather, and great grandfather, and probably progenitors still more remote. They could not be effaced, for when removed by the use of a file, the succeeding growth presented the characteristic marks in strict conformity to the hereditary impress. Corresponding minuteness is observable in the mental impress, and throughout life we are constantly startled by modes of thought, methods of expression, capacities and incapacities, which closely resemble those belonging to parents and grandparents.

A child with its lungs inflated with air is regarded as a new being, although life began before it was brought in contact with the external world. By a new being is meant a new human machine, which would never have existed had not two adult individuals set in motion a train of vital

activities, under the guidance and control of nature's laws. The new being is perhaps the most perfect example of helplessness that can be conceived of, and its first demand is for food, which it has no power of obtaining. The atmosphere does its part of necessary work in supplying oxygen, and respiration goes on spontaneously, and the maternal instinct, upheld and supported by love, supplies the needed nutrition. Thus commences the physical career of man, and henceforward the whole work of material life consists in supplying the proper forms of organic matter to promote growth and repair waste. The little mass of organized matter which has newly come into the world grows as an animal or tree grows, by the multiplication of cells, and the cells are formed by the material placed in the organs of digestion and assimilation by the mother. It is necessary that the elements of nutrition should be held in suspension in much water in order that they may be digested by the feeble stomach

of the child, and hence a distinct class of organs are supplied in the female by which this food is manufactured. The lacteal secretion consists of common water about eighty-six parts, and the fourteen parts of solids consist of every material in right proportion to form the structure of a perfect physical man.

The child, until the teeth are formed and the work of mastication commences, is built up wholly from the food supplied to the mother, but if through some defect of organization the maternal food is not furnished, the cow, goat, and other animals can supply the want. Thus, when resort is had to the lacteal secretion of the cow, it is the food of the animal which builds up the body of the child; the hay and grain of the cow is transformed over into human flesh, and every molecule of the body of the "precious baby," has passed through the animal organism from hay and grain fields.

These considerations bring to view the

close relationship we sustain secondarily to animal life and primarily to the vegetable world. In the chemical constitution of tissue, nerve, and bone, there is perfect uniformity in men and animals; and in the changes which result in metamorphosis of structure, no dissimilarity in results can by any possibility be determined. If we could but find a single element in the physical structure of man not found in the organism of domestic animals, it might be regarded as significant of a higher or more complex organization, but this we fail to find. Man in his fleshly nature is indissolubly linked with the lower forms of creation; even the crimson current of life which warms and sustains the one is almost identical in its chemical and physical nature with that which performs the same office for the other. The mammals as a family, or a great division of animated nature, have peculiar characteristics, not only in material constitution, but in organic and functional development, which link them together as

a whole, with man as the highest in the group.

In studying the material man we are interested to discover if possible the hiding place of that other principle, without which material man could not exist. In vain we search through the organism open to the sense of sight, but the *mind* does not stamp impressions upon any organ which are distinguishable to any human sense. We can trace nerve action and distinguish mind movements as a form of energy peculiar in all its aspects; but as we search for its origin or source it becomes like the spot where the rainbow touches the ground, it recedes as we advance, and a weary chase leaves us no nearer the object than when we commenced its pursuit.

The brain is usually considered the seat of the mind, the throne from which its commands go forth, and where the court of conscience holds its stormy sessions; but is satisfactory evidence afforded from the study of the physics of the brain that

such is the fact? There are certain significant indications that the brain is the seat of what is known as nerve force, and that it is the "central office," so to speak, towards which the telephonic system of nerve conductors all converge, but neither brain or nerve tissue constitute any part of the spiritual man.

The human brain in texture, color, and chemical constitution does not essentially differ from that of the dog or horse; but in amount or mass it fails to correspond, as in man the weight of the brain greatly exceeds that of animals, the comparative weight of the body being considered. The near proximity of the central organs of sense to the brain meets no necessities so far as affording rapidity of communication is involved, for nerve action or transmission is instantaneous. The prick of a pin upon the extreme end of a toe six feet more or less from the brain is felt simultaneously with a like injury to the lip or ear. There is no appreciable time consumed in transmitting

sensations from one part of the body to another. The life principle is everywhere, and injury to the grouped molecules of matter wherever the blood circulates is injury to the spiritual man, who dominates over matter. Man's connection with the external world, independent of his own organism, strikingly corresponds with the possibilities of the human body. He is at present practically everywhere; as a citizen of one city or municipality, he has but little closer communication with his neighbors, or even the members of his own household, than with those living on the opposite side of the globe. In crowding the air with his electrodes so that great cities have the appearance of being enclosed in a huge spider's web, he only imitates the structural parts and functions of his own body. The relations he sustains to this marvellous work of his hands, correspond with the relations of the spiritual man to the mechanism of the human organization. The physical man stands

behind, and controls the electrical pathways and messengers of thought; so the spiritual man fulfils the same office in controlling the nerve forces, which have special duties to perform, to bring the body into communication with others of the race, and with external nature as a whole.

At one time thirty years ago there was a belief, more distinctly a popular one, that different parts of the brain or cerebral hemisphere are the organs of the different mental faculties, and that external protuberances on the skull indicate the position of the different faculties. This was the doctrine introduced by Dr. Gall, and under the name of phrenology became very popular. A class of peripatetic lecturers, distinguished for lack of learning, swarmed over the United States and Europe, presenting the doctrines to wondering and believing audiences, and illustrating its practical benefits by manipulating the skull and delineating character and proclivities in a very positive way. So general was

the belief in the notion that almost every one carried in his pocket a highly ornamented skull chart on which could be read his own character and capabilities, usually highly flattering. A boy starting out to seek his fortune would no more have thought at that time of leaving without his skull chart than a shipmaster would think of leaving port without his compass or sextant. But this fallacy lost its hold as soon as the vivisectionists pointed out that an animal will bear to have its cerebral hemisphere gradually sliced away; and the slicing may be done in any direction with the same result, namely: gradually increasing stupidity, but with no change of character according as one or other phrenological organ is removed. Persons have recovered from wounds from which portions of the brain have protruded and been amputated; but it makes no difference what part of the hemisphere is injured, no alteration results in the mental constitution of the patient. Beside, the hemispheres are not divided

into organs; but, supposing such organs existed, it would be quite impossible to tell their size by the phrenological method.

Extended experiments have been made in freezing the brain of living animals, and it has been shown that when by the use of freezing mixtures the living brain is frozen solid, the animal is not destroyed. Its powers may be retained in an ice-bound condition for hours, with every faculty practically dead; and yet, set free from cold, they are revived and all come back again as healthful as ever. This is a marvellous revealing, and seems to show that the mind is not wholly resident in the brain. The freezing of the body as a whole, results in the prompt separation of mind and matter, and if the whole of mind was resident in the brain, freezing the nervous tissues would cause death. The human brain is largely composed of common water. Analysis shows that on an average eighty-four per cent is water, and only sixteen per cent solid material. Therefore, when the brain

is frozen it is but little better than a globe of solid ice.

By the employment of highly volatile liquids, in the form of spray, portions of the brain have been frozen temporarily; that is, the portions which have been supposed to be the seat of distinct faculties have been brought under the influence of frost, and sensation thereby locally destroyed. When the two lobes of the cerebrum, or larger brain, are frozen, the phenomena produced are those indicating entire loss of volition, of sensation, all that may be considered intelligence; there is a profound sleep, and surgical operations can be performed upon the animal without pain. When smaller areas of the brain are brought under the influence of cold the resulting phenomena vary in a remarkable manner, but the general effect is partial suspension of sensation.

These experiments show how remarkably the mind is under the control of its material environment, as when the matter of the

brain is put into abnormal conditions it no longer holds control but remains dormant. The mind, which is uninfluenced in other parts of the body by cold, goes on with its work, the acts of respiration are performed regularly, the heart continues its functions, the blood courses through the veins and arteries as usual. All these acts, which are termed semi-voluntary and involuntary, are performed when the brain mass is frozen.

The deduction might be drawn from these experiments that heat is the source of mind, or indeed is mind, inasmuch as when it is present in the brain its functions are active, when it is withdrawn they are dormant. This conclusion would necessitate the belief that mind is co-related with the energies known as heat, electricity, and light, and give color to the views of a class of philosophers who regard mind as a form of energy no more exalted than other forces in nature.

It is significant of the erroneous nature of such views, the fact, that impressions

made on the brain before heat is withdrawn remain and with the restoration of heat are continued, showing that the mind principle is still present although heat is absent from the brain. The mind, the living principle, is not destroyed, but is so far influenced by abnormal physical conditions that its activities are suspended. It is certain that mind is capable of remaining in a passive or inactive state distinct from the conditions of sleep for long periods of time, how long we do not know. It is believed by some that mind impressions are physical realities, stamped as it were on brain matter when the matter on which it is set is in motion; everything we remember is thus imprinted on the brain, on infinite points of brain substance each independent and free. This view makes the brain a physical microcosm, a world within mirroring the world without.

It is indeed not difficult to conceive of such possibities, inasmuch as we know what science has accomplished in the field of

microphotography. There are before me a dozen or more pieces of glass, and I take one of them in hand and examine it with the closest scrutiny. Nothing but a minute speck is seen upon the clean surface, but I slide the glass under the lenses of the microscope, and what a revelation! There is spread out before the eye a full page of that great journal, the London Times, every line and letter distinct and clear. Long editorials can be read with ease by the aid of the lenses; but remove the slide, and the unaided eye fails to find any spot which cannot be covered with the sharp point of a needle. On such infinitesimal spaces of matter on glass surfaces are recorded the Lord's Prayer, the ten commandments, and other pages of printed matter.

If on brain surfaces all the memories of a life-time are photographed, it is conceivable how space may be found for such a record, but this purely physical view does not commend itself to the intelligent reason. Mind must be a distinct principle, wholly

unlike the material brain through which it acts; and when it leaves its hiding-place in the physical structure it carries away all there is of man worth preserving, his moral nature. Eight or nine ounces of nervous tissue, held in suspension in forty or more ounces of pure water, do not constitute the mind or soul of man.

The gray substance of the brain is unquestionably highly organized material, but it is only matter, and when out of control of mind obeys the laws under which all matter must act.

Man as a whole, studied in his material or chemical relationships, presents no special points which distinguish him from other forms of animated nature. He has been described as nothing more than a few pounds of solids diffused in a half-dozen buckets of water, and this empirical statement contains the elements of truth. Considered as a machine, man presents the most wonderful example of superhuman wisdom to be found in the wide universe

of matter. In structural design and perfection of parts, the physical man is indeed a marvel of complexity and simplicity. Organic and functional offices are conducted in the system in health with a precision and perfection which cannot be imitated by art. Every functional movement appears to be guided by a superior wisdom, and every process is directed by a subtle chemistry not understood in college laboratories. Passing by the intricate processes of digestion and assimilation, the secretion of the different fluids and the ejection of effete substances from the body, let us look for a moment at the processes by which growth is promoted and the child is raised to the high estate of man. As has been stated, the starting point of a human being is within the limits of a single cell, an object infinitesimally small, but the seat of great activities.

The simplicity of Topsy in Mrs. Stowe's famous story of "Uncle Tom" has excited hearty laughter from many a reader, but

not all have considered the profound philosophy which lurks beneath her intuition in the answer she gives to the inquiry, "who made her?" The question is a perplexing one not alone to poor ignorant Topsy, but to all those who put such questions. Not having been born, she must have "growed," and in this answer she evades a question the most learned zoologist is not prepared to solve. She was certain that she "growed," for the careless observation of the simple and ignorant is sufficient to prove that somehow human beings increase in size from year to year, but the *beginning* is covered by a cloud without rift or boundary.

So far as the microscope reveals the nature of the physical and chemical activities involved in the process of growth, we learn that it is a play of affinities which corresponds with molecular motion throughout organic nature. The single cell in which life begins as it is excited by the fecundating principle, presents a scene of activities

corresponding with those observable in a hive of bees during the season when the highest supply of food is furnished by expanding buds and flowers. The vegetable cell affords some distinguishing features in which chlorophyl, the green coloring principle, plays an important part, but, as a whole, chemical action is the same. Each cell has a nucleus or central point of life, and around it the molecules of matter are in ceaseless motion. The cell material is organized matter in a highly excited state, and the work carried on is confined to building up cell walls and to laying the foundation for new cell structures. One cell organism rises upon another in the solid parts, and in liquids the cells float about and perform their functions in an unstable condition. Growth in liquids and solids is by the multiplication of infinitesimal cells, and the material is supplied by the nutriment received into the digestive organs.

When we consider the complexity of the

various organs and parts of material man, the nervous and muscular tissues, the blood, the secretions, the brain, the nails, the bones, etc., of the body, and are assured that all comes from similar food material, and from the oxygen of the air, it conveys to the mind profound impressions of mystery. There is in the contents of the hen's egg every material needed to build up the structure of the chick, consisting of bones, feathers, bill, feet, eyes, in short, all the organs and appendages of the little organism.

The period of growth, or that during which increase of mass goes forward, in man, is confined to the first fifteen or twenty years of his existence.

During this period the necessary waste of tissue continues, and construction and repair go on simultaneously, necessitating a larger supply of material than is needed at other epochs in life. During cell growth, the contour of form is preserved, and uniformity of increase is maintained. One

limb, one ear, or one bone, does not grow faster than another; the blood is the grand carrier of material and it circulates everywhere. The little molecules crowd and push their way into the minutest tubes of every part of the growing child, and bring along the carbon, nitrogen, oxygen, lime, and other material needed, and the cells are built up and they multiply until the mature form of man is perfected.

In the process of growth and in the supply of waste material in the body, we have to study the evolutions and chemical changes of matter, and in material man we have nothing but matter to consider and bring into the field of research. At this point the important inquiry arises, what is matter?

The positive manner in which matter is spoken of in scientific discussion leads one to conclude that it is well understood, and that it is easy to define what it is. In looking out upon the world of matter, we see an infinite variety of forms, and

to these we have given names, and have learned that each form has its own characteristics and is marked by peculiar behavior. Matter is attended by phenomena of motion and affinity, which two distinguishing points constitute the whole field of study open to man. There are more than sixty bodies which are distinguishable by their peculiar physical appearance and by their behavior and reactions. These bodies we call elements; and when they group themselves together they are called molecules; and when these combine in mass, a body results, which may be solid, liquid, or gaseous, and to which is given a name which distinguishes it from all other bodies. After a careful study of a body, we are still in the dark regarding what it is. Very many of the most active and wonderful forms which have been studied, and which are supposed to be well understood, have never been seen by the eye of the investigator. These forms of matter are exceedingly wonderful and interesting;

the element *nitrogen* affords a striking example, and its history and affinities are worthy of brief notice.

Nitrogen belongs to a class of bodies which are incapable of influencing any of the senses so far as to be recognized by them. It cannot be seen, tasted, nor touched so as to produce tangible impressions, and it has no odor. During all the ages, until within little more than a century, mankind were wholly ignorant of its existence. It is a form of matter found in a permanently aeriform state, or as a gaseous body, which under no ordinary conditions can be made to assume a solid or liquid form. The atmosphere is its home and hiding-place, and therefore it is constantly in close proximity with our bodies, and with everything existing upon the earth. It passes into the cavity of the lungs of all breathing animals at every inspiration, traverses the circuit of the air-cells, and is expelled as nitrogen without diminution of volume or any chemical

change whatever. The volume of free nitrogen in the air is immense, and its weight as it rests upon the earth's crust can be understood only by a consideration of the figures which approximately represent it. The whole weight of the nitrogen contained in the gaseous envelope of our planet may approximately be stated to be three quadrillions, nine hundred and ninety-four trillions, five hundred and ninety-two billions, nine hundred and twenty-five millions of *tons!* The popular notion of its use in the atmosphere, that it is simply a diluent of oxygen, is probably correct. It must subserve other and important purposes, but to ordinary observation it appears to have been supplied by the Supreme Intelligence, for the main purpose of so attenuating oxygen as to keep it within safe bounds as a respiratory agent and supporter of combustion. It is the most stupid, so to speak, and negative of the large family of elements. It resists chemical combinations with remarkable

persistency, and when forced into such unions the affinity is slight and disruption is easy. It may be said to be the most unimportant and yet the most important of all the elements, — a paradoxical statement easily comprehended by every chemist. It is docile, negative, unaggressive, in its natural state, but when forced into combination with oxygen it gives us acids with teeth sharp enough to gnaw a file. When combined with potash, and the resultant salt mixed with a little sulphur and charcoal, it gives us gunpowder, an agent well known to possess extraordinary properties. When associated with the bland and sweet substance known as glycerine, it forms nitro-glycerine, dynamite, lithofracture, giant-powder, — agents so terrible as to appall mankind by their destructiveness. Shreds of cotton picked from the ripened bolls which open to the Southern sun, when placed for a few moments in the acid which is born of nitrogen, suddenly lose their innocent nature, and become giants

in power, capable of levelling forests and mountains at the touch of fire. Nitrogen forms the basis upon which rest the great chemical forces so destructive and yet so useful to the race. It comes out of its chemical unions with a crash, but it at once assumes its usual dead condition, and floats in the air with all the harmlessness of the summer breeze. When introduced into the human or animal organism, it originates and sustains nervous or muscular force. We move our limbs and conduct the physical labors of life through the agency of nitrogen or its compounds. Our animals — the oxen and horses which we rear — are serviceable in the yoke and harness only through the changes resulting in the combinations and elimination of nitrogen. After it has served its purpose in the body, it does not as a whole escape into the air, as when it is set free by explosions, but it appears in the liquid and solid excrement in certain forms of combination, which to become fixed and serviceable as plant food

must receive intelligent care. The proneness of nitrogen to disassociate or free itself from its combinations is seen in the changes which excrement undergoes soon after leaving the animal organism. So long as any nitrogenous compound is controlled by the vital forces of animal life it is held in check and the equilibrium is preserved, but as soon as the external air is reached it struggles to free itself from its environment. The highly organized compounds take on fermentative changes; hydrogen is evolved, another gaseous body, and the nitrogen is led into an alliance with this element in such proportions as to form ammonia. Ammonia is distinguished for its volatility or readiness to escape, whether it be free or in the form of carbonate. This statement of what is supposed to be known of nitrogen, its nature, affinities, behavior, etc., may be regarded as applicable to many other simple and compound bodies. The attendant phenomena are not observable, neither are

they distinctly understood; but the facts are deducible from the results of experiment with the aid of appliances which science supplies, therefore they are set down as known facts.

The study of the behavior of matter has not resulted in throwing satisfactory light upon the problem as to what it is.

To the modern experimenter, matter is only known by what it does. It is said to have weight; but if gravitation is, as seems probable, only a "wave motion" correlated with light, heat, electricity, etc., we are deprived of the most significant method of designating matter in its apparent or gross conditions. Matter has form, substance; but if, as has been proved, the interstices between the molecules, so called, are so great as to allow of ceaseless motion, an unending clashing of forces, our ideas of solidity or substance vanish. If matter is not what it seems to be, in so far as weight and substance are involved, there is little left in the universe

but what is regarded as force and "ether," and of the nature of these we know nothing positively. The ether of space, concerning the existence of which there is scarcely room for doubt, is matter, but in such an attenuated form as to approach the supposed condition of spirit. Professor Tyndall thinks this ether to be matter, but not a form of ordinary matter. As we do not understand the form of ordinary matter, it is hardly philosophical to assume that an unknown form is like or unlike another no better understood. In discussing the constitution of matter, the existence of atoms and molecules is assumed ; but have we any proof of the existence of these bodies, or have we any language in which we can satisfactorily describe them ? We can easily conceive of things we cannot see ; but when we come to atoms, the mind can no more comprehend their minuteness, if they exist at all, than it can the infinity of space in the stellar universe.

Faraday, in speaking of atoms, calls them "lines of force," "centres of force," and does not seem to regard them as little bodies surrounded by forces. He remarks in an interesting paper that "the force of forces constitutes matter; there is no space between the particles distinct from the particles of matter." This is a confused statement, and serves to show how a great mind will struggle in attempts to comprehend the incomprehensible. Another distinguished physicist calls atoms "mathematical points," a term which has no meaning in the connection in which it is used.

The existence of atoms and molecules as distinct bodies being assumed, attempts to define their minuteness might be expected from those who never shrink from the solution of the most intricate problems. The highest powers of our best modern microscope will enable us to see objects $\frac{1}{80,000}$ of an inch in diameter, and we may inquire what sort of relation this

power of microscopically assisted vision bears to the probable size of molecules of matter. The results obtained by Stoney, Thompson, and Clerk-Maxwell, in attempts to calculate from different data the number of ultimate atoms in a given volume of any permanent and perfect gas at zero, and at a pressure of one atmosphere, vary greatly. Thompson assigns as the greatest possible limit 98,320,000,000,000, in $\frac{1}{1000}$ of an inch cube, which is $\frac{1}{1,000,000,000}$ of one cubic inch. Clerk-Maxwell made it only 311,000,000,000, Stoney 1,901,000,000,000. Mr. Sorby has stated that he feels justified, for various reasons, in doubling Clerk-Maxwell's figures, and assumes the number of atoms in a cubic $\frac{1}{1000}$ of an inch of gas to be 6,000,000,000,000. These numbers are sufficiently astounding, but the enormous difference in results serves to show how little is absolutely known, or can be known, regarding atoms. If there exist such bodies as atoms, they are, as Mr. Sorby suggests, so infinitely minute,

that *light is too coarse a medium* to enable us to see them, even if we could add sufficiently to the powers of our microscopes.

It is clear, if we do not know what matter is, that the nature of material man is still an unsolved problem. As he stands revealed to the sense of sight, we have impressions of form, of substance, of that which is real, and these impressions answer all the purposes of our material condition of existence. Life may be a delusion, a dream, and there is much to lead to such a view ; but it is nevertheless active, real, and crowded with momentous duties and responsibilities.

THE SPIRITUAL MAN.

It is rather more than eighteen centuries since a man who made no claim to being a philosopher, metaphysician, or biologist, in writing of the relationships of material man to another state of existence, asserted with all the positiveness of profound conviction, that "there is a natural (or material) body, and there is a spiritual body." This writer is lightly regarded by some critics, and as he was certainly without a knowledge of physics, or psychics, as understood by modern investigators, his views are not quoted or held as authoritative by scientific bodies of the present age. Those who speak of Paul as a mere theologian and enthusiast should remember that he was the interpreter and expounder of the doctrines and moral maxims of one

infinitely greater than himself, and that his Master had repeatedly asserted the same doctrine of the dual nature of man. It was, indeed, the fundamental ground work upon which his doctrines and claims rested, — the pivotal point of all his teachings.

The term "spiritual body," as used by this writer, was intended to convey the idea that there is associated with structural man an unseen body which corresponds with that which is open to the sense of sight. The design is to show that the spiritual man is the counterpart of material man, in form and physical characteristics; that one is separable from the other, and that one is as *real* as the other. The doctrine is taught elsewhere by the writer, that "spiritual things are spiritually discerned," that is, that each human being has spiritual eyes, which, when opened, will enable one to see this spiritual body, invisible to the material sight. The end and design of the argument is to convince

those who listened and those who read, that the spiritual man is a pervasive principle throughout the physical organism, a something which is vastly more than shadow, more than essence, more than the misty outlines of a dream, and that it is imperishable.

Neither Paul or his master asserted duality in nature, as did some of the ancient philosophers. Plato and Anaxagoras pretended to discover in nature a double order of arrangement, a seen and unseen system. which in some aspects corresponded with man's duality. It was reserved for the great teacher of Nazareth to assert the existence and dominating power of the spiritual man.

This doctrine, as a strictly scientific problem, receives no attention, and is hardly regarded as a legitimate subject for serious discussion. The "Concepts of Modern Physics" have no pages devoted to a consideration of this doctrine, and no treatise or essay received as having weight

brings it to view. There are, however, many striking analogies found in nature, and especially in man's physical organization, which, studied in the light of his dual nature, are interesting and suggestive; and there are also many facts in biological science which go far to sustain the view under consideration. We will first point out some analogies found in structural man: —

The duplication of external organs or parts, as two eyes, two ears, two nostrils, two hands, two feet, etc., may not have special significancy, but when we study the hidden structure of man, revelations are made, which, to say the least, are worthy of thought. In the osseous dome which covers the brain we have two plates, and there are two membranous curtains, covering the nervous tissues of the brain; in this organ, then, we have two great divisions or hemispheres. There are two kinds of blood circulating through the tissues, with two systems of ducts, each conveying its

appropriate fluid; the blood itself holds two kinds of corpuscles, the white and the red, and two metals, iron and thallium; phosphorus exists in two forms in the tissues, oxidized and unoxidized; there are two divisions of nerves, two prominent secretions from membranes, the mucous and serous; two forms of excreta, liquid and solid; two processes in digestion, two in assimilation; we inspire oxygen and expire carbonic acid; there are *two* glands for the secretion of saliva, two for tears; two organs for respiration, and the bones are composed of two forms of matter, tricalcic phosphate and gelatine. The enumeration might be carried much further, but enough is pointed out to show that duality exists in man's physical nature, which may be regarded as significant of a crowning act of duality in the bestowal of a spiritual nature in association with the material.

The sense of vision in its normal action is like the other senses, adapted only to the necessities of man's organized nature;

but there is abundant evidence to show that under unusual conditions the spiritual sight is capable of holding the natural in abeyance, and by its exercise bringing to view the unseen in the natural and spiritual worlds. Beyond the possibility of a doubt there is a condition when the material man is practically dead, dead as when under the influence of cold the brain is frozen solid. In such instances the spiritual does not part from the material. When caloric is absent from the brain, both the spiritual and material functions are inactive; when the spiritual dominates over the material, the latter is alone inactive, that is, it cannot influence the spiritual and chain it to gross matter, — it rises superior to its environment.

The human mind is a much more exalted form of energy, if it may be so designated, than it seems to be in its association with matter; and this exalted state is shown whenever conditions are favorable for its exercise. The psychological peculiarities

of some individuals permit, apparently, the temporary separation of mind from nervous tissue, and of its exercise when in the freed state. It looks through the universe unhindered by matter — indeed it appears to be independent of it. The scope of its vision is broad enough to unfold activities in nature, of which it is impossible for the material man to take cognizance. The speed with which it moves finds an example only in the electrical force and in the movements of light rays from luminous bodies. Walls of brick or stone which effectually shut out light, and hinder the passage of the electrical force, are transparent to the eye of the mind in the freed condition, and they offer no more obstacles to this exalted vision than they do to thought.

Thought, which is at all times untrammelled, is indeed but a function of the mind, a manifestation of the mind's capabilities when free from the control of matter. It is easy to think of a distant

city or country without any appreciable lapse of time, but we cannot see distant cities because sight is a local impression, under ordinary conditions, and is dependent upon the co-operation of matter. Free the sense of sight from its material environment, and it then becomes, like thought, unlimited in its capacities.

Difficult of comprehension as is the dual nature of man, it supplies scarcely greater difficulties than are presented in many of the relationships of different forms of matter. The osseous framework of man has a dual nature, and affords a striking illustration of the association of two forms of matter utterly distinct, one belonging to the dead inorganic world, the other to the organic or living. We have here analogies worth noticing. The spirit of man may be likened to the gelatinous portion of bones, and the body to the calcic or earthy portion, the latter completely masking the former, or living principle. Before the discovery of pow-

erful acids, a century or more ago, no one then living could understand that dry bones contained an organic living principle distinct from the refractory substance open to the eye. Bone material presents a hard, compact surface and texture closely resembling limestone, to which it is allied. It resists for long periods the action of those disintegrating forces which speedily turn to dust and gases the other portions of the body, and, unless the substance is demanded for use in the arts, is a waste and troublesome product.

Let us look at the analogies supplied by osseous substances, as illustrating the co-existence of body and spirit. If we take the dry osseous human skeleton and place it in a tank of hydrochloric acid, changing the acid as often as it becomes saturated with the calcic element, we find that in a few weeks, or perhaps months, the inorganic portion has entirely disappeared, but there remains, occupying the

same space and preserving the same form, a skeleton which is no longer bone. The framework of ribs, vertebræ, etc., is no longer opaque and solid, but transparent and yielding to the touch; the soul or spirit, so to speak, of the bone structure remains, but the earthy portion has been resolved into other forms of matter. This organic form of the osseous structure of man can be preserved in proper liquids for an indefinite period of time, after the bone has been forced into new chemical combinations.

If we had an agent capable of dissolving the material body of a living man, leaving untouched the spiritual form, so that our natural eyes could behold it in its dissevered state, it would be a revelation but little more wonderful than what has been described. The process called death lifts the spiritual body out of the material without the intervention of solvents devised by human skill; and although we cannot see the act of separation with our

visual organs, it may be open to the spiritual eyes of those who have experienced the change.

The remark is often made by educated men that they are entirely unable to entertain conceptions of spirit, or form any idea of its nature or capabilities, and therefore they cherish stolid disbelief in its existence. Such should remember that they are as clearly incompetent to understand the nature of matter and most of the laws by which it is influenced.

A few years ago, before science removed the thick veil which hid from view many of the secrets of nature, mankind were walking amid mysteries which met them at every step. As regards respiration, they did not know anything of the nature of the air, or why it was so perfectly adapted to maintain animal life; they did not know when a fire was kindled upon the hearth what was the cause or what the nature of the phenomena of combustion; they did not know or believe

that air was a material substance, having weight like sand or water; they did not believe that water, or one of its elements, was combustible, and that the other was the grand supporter of combustion. These and many other of the secrets of nature were hidden from their eyes and understandings, but not from ours. We can explain and demonstrate a thousand processes and movements in nature which cannot be understood; and if we yield belief to only that which we see and fully comprehend, our field of knowledge is reduced to narrow limits.

There is as good ground for agnosticism in physics as in psychics. A considerable number of the movements and changes in the physical world, which are regarded as well-ascertained facts, are still lingering in the domain of hypothesis. Electricity in itself considered, and much of its attendant phenomena, belongs to the realm of the unknown. We call it force, but after bestowing upon it a name it still remains a mystery.

Considered as a *thing*, we know as much of spirit as we do of electricity. The claim that one is a physical, the other a moral force, is unsatisfactory, as the distinction is clearly indefinable. The physical and spiritual forces are capable of producing like impressions upon matter, and influencing its multiform changes.

Those among the educated classes who speak derisively of the results of biological research and of some observed occult psychical phenomena, are apt to place in contrast what are called demonstrable facts in physical science, and claim a much clearer insight in that direction than is warrantable. It is hazardous for any one to venture far in bringing to view disparaging contrasts, for it is easy to show that physical science is hedged in by barriers which effectively oppose its progress and the domain of the unknown is a field whose boundaries are as wide as the physical universe.

If it be true that man is pervaded by a

spiritual nature corresponding with his material, and that this nature is indestructible, or is uninfluenced by any of the physical disturbances which cause injury to the organic man, it follows that all such injuries leave the spiritual man untouched. If a limb is removed by the knife of the surgeon, it is only flesh that is taken away; the spiritual limb is unharmed and continues its company so long as life remains. Are there no facts which tend to show that such may indeed be the case? In nearly or perhaps quite all the instances of loss of limbs during the late war, the sufferers affirm that the excised member is at times as really present to the sensation as before the casualty occurred, and the feeling of heat and cold and even of pain in the space once filled by the absent limb are experienced keenly. A man who lost an arm twenty years ago states that the impression remains that he can use the absent hand and fingers, and he is constantly striving to pick up articles with the

"phantom hand." The index finger of the left hand was lost by the writer more than fifty years ago, and still sensations of the form to a large extent remain, and in attempts to play upon musical instruments requiring all the fingers, the missing one is felt to act with the others. It is not unusual to notice one-limbed men holding to the fire in winter the true and the false foot to be warmed. This class of phenomena may be explained in the usual way, by placing them in the field of mental illusions or hallucinations, and endeavoring to show that the brain in these instances is perverted in its functions. Such explanations are not, however, satisfactory.

The instances of what are known as second sight, clairvoyance, etc., are not unusual, and so well authenticated as positively to forbid doubt. If there are spiritual senses independent of the material, if there is spiritual sight, hearing, smell, etc., of an exalted nature in man, latent under

ordinary conditions when the material body has control, it may serve to explain such phenomena. Several persons are known to me who, while in a peculiar condition called "trance," can tell the time by a watch with great accuracy when the hands are moved to any position on the dial, and the watch is covered by double cases and wrapped in a napkin. The watch in these instances may be placed on the back of the head of the person or held in the hand of the experimenter. A young lady of the highest culture and respectability, connected with the family of a former neighbor and friend, has in my presence recited whole pages of a sermon as it was written by a clergyman on a Sunday morning in his study half a mile distant. While this recitation was proceeding (the transaction was new and wholly unexpected to the family), the father visited the study of the clergyman and brought back the manuscript with the ink scarcely dry, and compared it with the

words of his daughter as I had faithfully taken them from her lips. The two were precisely alike, hardly differing in a single word. In this instance there was no collusion, no trick; such would have been impossible, if the high position of the parties had not forbidden suspicion. Instances of this so-called "second-sight" are plenty enough, and they rest on testimony which silences incredulity. They are, however, not more numerous, perhaps, than instances of exalted hearing. Music has been heard by many persons, and every stage in the progress of a concert in a distant city correctly described.

If we accept the theory of man's dual nature, it is easy to understand how the spiritual or more exalted senses, under certain idiosyncrasies of conditions, might act independent of material environment. If they are thus able to act, it is certainly in accordance with design, and intended for a wise and beneficent purpose.

This assumption of a spiritual form co-

existent in man naturally raises the inquiry, why do not conditions occur under which it may be made manifest to the ordinary sense of vision? It is well known to every reader that many persons of the highest literary and scientific acquirements assert that the spiritual form has been seen by them.

Dr. William Crookes, of London, editor of the London Chemical News and London Quarterly Journal of Science, certainly one of the most eminent chemists and physicists now living, asserts positively that the phanton form of a lady appeared on several occasions in his own library, and conditions were such as to preclude all possibility of fraud or collusion. This assertion from so careful, cool, and competent an experimenter as Dr. Crookes would be worthy of consideration did it stand alone; but supplemented and supported as it is by the experiences and experiments of Mr. Alfred R. Wallace, who, since the death of Mr. Darwin, is acknowledged to be the most

eminent naturalist and biologist in England, and Mr. Varley, the well-known electrician, and many other students in science, the statement becomes one of great interest, strange and extraordinary as it is. The number of eminent men, acknowledged to be leaders in the advance of physical and biological science in all parts of Europe and the United States, who have thoroughly investigated similar alleged psychical phenomena and are found willing to lend their great names in attestation of its absolute verity, certainly afford a scientific basis upon which it may rest. The announcement in April, 1882, by M. Pasteur, at a meeting of the French Institute, of his spiritualistic beliefs, is significant of that modification of views in psychics and spiritual philosophy, which is revolutionary in its nature. It must not be supposed that Pasteur, or other of the eminent gentlemen to whom allusion has been made, has any affiliations with a class of men and women, who, distinguished

only for their ignorance and irregular lives, travel from point to point as public exhibitors of a spiritualistic jugglery, interesting only to the weak and credulous. They represent the stage of chaos which usually precedes the dawn of new truths for beneficent ends.

In view of what has been presented it is probable Paul was right when he declared that "there is a spiritual body" associated with the natural body. It may be that his intuition was the result of whisperings from disembodied spiritual forms of patriarchs and prophets who crowded around him in his ministrations, and who, illuminated by a brighter light than beams upon the pathway of material man, were able to assist him in securing insight into some of the momentous problems of life.

WHAT IS SPIRIT?

THE nature of matter having been considered, it remains to inquire as regards the nature of spirit. In pursuing this inquiry we grope our way in a field unillumined by the lamp of science, and unaided by investigators whose labors are worthy of confidence. Ecclesiastics and theologians have written innumerable treatises upon spirit or soul, but we read them for the most part as we would study the map of a new country on which are traced rivers with hypothetical sources and courses, and mountain ranges without statement of latitude, longitude, or altitude. Such teachers often afford painful evidence that their claims to knowledge are not based on research, but are rather the offspring of theological bias or religious emotion.

The greatest and best man that ever appeared upon our planet, Jesus of Nazareth, often alludes to spirit in his teachings, as recorded by his followers, but he has not told us what it is. He was able to perform many extraordinary acts, some of which furnish hints as regards what spirit must be in order that the conditions of the transaction as recorded might be met. Luke states that on one occasion, after the crucifixion, his disciples were gathered in a closed room at Jerusalem, and the Master suddenly appeared in their midst. Whence he came, or how he reached his place in the room, no one knew.

The company were greatly frightened at the apparition, "and supposed that they had seen a spirit." He did not calm them by stating that they were under the influence of superstitious fears, that spirits were imaginary beings, but he told them "that a spirit hath not flesh and bones as ye see me have." This negative testimony to the actual existence of unseen spiritual

forms within the domain of the terrestrial, must have great significancy to those who claim a supernatural insight for the great teacher. The legitimate inference from this, and other statements of like nature found in the records of the apostles, is, that there were spirits or ghosts moving about in matter, that they were not constituted of matter, they did not have "flesh and bones," as the Master had when he spake to his disciples. It is probable that he wished by his sudden and unaccountable appearance among them to make manifest his two natures, the material and spiritual, and also, what is of great interest and importance, the more distinctive nature of spirit. If, as seems clear, he came into the assembly by passing through closed doors, or through the walls of the building, it would serve to show that spirit is not in its movements hindered by matter, that it does not act in obedience to laws which govern matter; and further, the act would show that the Master possessed the power

of putting off the material body and assuming it again instantaneously. He was fond of appearing to his followers in sudden or miraculous ways, as in the instance when he appeared to the two on the way to Emmaus. In this instance it is stated that the natural sight of his friends was modified so that they should not know him. The historians of his career claim for him absolute control over both natures of man: he could appear or disappear at will, and in his last act "he *vanished* out of sight." Science views these occult proceedings with distrust, but this distrust has little or no influence upon the millions who calmly rest within the domain of the Christian faith.

Science having no methods by which it can experimentally determine that man has a spiritual nature distinct from the material, it follows that it must be incompetent to throw light upon the nature of that which is unrecognized or unknown. It is certain that man dies as do the inferior animals,

but it cannot be shown that anything is lost by the change. The body may cease to live when inclosed in a room of glass, which forms a perfect barrier to the escape of any essence, even of the most subtle nature, and the principle of life absent from the body cannot be detected in the imprisoned air by the most ingenious methods of testing. The delicate balances of the chemist, which turn with a weight of the hundredth of a millegram, cannot show that anything is lost to the body. But it is assumed that *something* has departed, a something which has left no void in the defunct body, and which is of such ethereal nature that no barriers placed in its way by man can hold it for a single instant. Inconceivable as is the ether of space, in its tenuity, it is as granite in comparison with this hypothetical spiritual ether, this life principle of man.

No fact in nature is more distinctly clear than that certain exhalations or essences exist which are as incomprehensi-

ble to us as spirit. It is interesting to consider some subtle powers possessed by animals in this connection. Quite recently in driving an intelligent horse into the stable yard, I was surprised at the evidences of fear exhibited by the animal. He looked suspiciously to the right and left, was restive, nervous, and almost uncontrollable. Nothing could be seen calculated to excite this fear. The place was familiar to him, no changes had been made; the transaction was a puzzle. It was soon learned that, several hours before, a traveller, leading a large *bear*, came into the yard and remained long enough to obtain some water. A few years before, this horse had been frightened by the sudden appearance of a bear upon the highway, and hence a clue was afforded to the mystery. In this circumstance, perhaps no more extraordinary than others, we have evidence that in some way, through some agent or avenue, the horse learned that a dreaded animal had been in the vicinity;

hence its fear. Five hours had elapsed since the animal walked into the yard, and at the time of the fright of the horse was several miles distant. Through what sense was this knowledge obtained? Was it by the sense of *smell?* Was it by some exalted condition of the sense of sight? Upon these points we have no knowledge. Outside of excrement and secretory matter, it is impossible to conceive of the nature of any material exhalations which an animal could leave in a roadway capable of being detected three hours after the animal walked over it. Human thought, or the power of imagination even, cannot grasp such an idea.

A dog follows the track of his master days after he walked across a field or in a road. Do we know what enduring principle or essence is left in his course, which enables the animal to follow exactly in his footsteps? The dog, in tracing the course of his master, puts his nose to the ground, but this act does not prove that

he is using the olfactory sense; he would assume this position if he was employing the sense of sight or taste. If we assume that the dog is capable of employing senses in an exalted state, that hypothesis does not help us out of our perplexities, as we can form no idea of such a state; indeed, we do not know that any of the external senses of the animal are involved in the matter. The point sought to be established is this: if we have brought to view striking instances illustrative of the actual presence in animals of powers transcending human comprehension, why is it difficult to conceive of a principle in man capable of surviving the death of the body; a principle which can leave the physical frame and rise to a more exalted condition, to a new life?

In a company of friends distinguished in the walks of literature and science, the question was asked, if it is possible to form any satisfactory conceptions of the nature of spirit and the conditions of a future life

not based on emotion or sentiment. The reply was, that it is possible. In dreams we often have experiences which make clear the possibility of life without physical activity. It once appeared to the author in a dream that he was travelling in France, and with friends had rested at a small inn. A thunder-storm arose; the thunder reverberated through the heavens, the lightning flashed, the pattering raindrops came slowly at first, and finally the storm burst in all its fury. Looking out of the window, it was observed that a company of travelling minstrels had turned into the yard and sought cover under a farm-wagon at hand. The water ran in the streets, the trees bent to the force of the wind. Soon the cloud passed, the sun shone in the west, a rainbow appeared in the east; the minstrels came out of their place of refuge, and played upon their instruments under the windows of the inn. A window was opened and a sense of delight experienced at the scene presented

to view. The adjoining fields were visited while the rain-drops still weighed down the green grass, and the light was reflected from the leaves of beautiful shrubs. Flowers and minerals were collected, and on returning to the hotel tea was provided. Thus were presented some of the incidents of an actual dream, and the inquiry was raised, if this dream could continue with its shifting scenes during the ordinary period of human existence, or throughout eternity, would it not be equivalent to actual life, or would it not be positive existence? The body was passive in bed, and took no part in this form of life; the spirit was awake and did not need the body. How much more actual or real is this earthly existence than the incidents of a dream? A dream often presents all life's correspondences: it affords us joy, sorrow, pleasure, remorse; it gives keen participation in all the changes and events in nature; it places us in company with friends; all the phenomena of storms are

observed: thunder, lightning, rain, wind, and the rainbow; music delights us, and so do flowers; we travel, eat, drink, converse. What more does physical life present? Who has not awoke from a pleasant dream with regret?

The questions of the nature, cause, or philosophy of dreams have nothing to do with this discussion; the sole object is to show how it is possible for us to conceive of a life independent of the body. With the body practically dead, we go over life's experiences with zest, and live in a world to which the mind or spirit can alone gain access. It can hardly be necessary to remark at this point that views of the life hereafter do not lead us to regard it as of the nature of a dream.

Spirit, viewed from the standpoint of the materialist, is but a mode of motion, a force correlated with the physical forces; it springs from the peculiar juxtaposition and motion of molecules of matter in the physical organism. This view can have

no substantial basis to rest upon, but it may be well to present an outline of the theories adopted by some of the best thinkers in the ranks of materialists.

Science has demonstrated that all effects produced in nature result from motion. Everything is in motion, — sun, moon, planets, stars, earth, and so on, down to molecules and atoms. Light, heat, electricity, chemical action, are but modes of motion. It is assumed that there is an exceedingly rare medium pervading all space, called "ether," and that it occupies the interstices between molecules and atoms. The ether is put in motion from various causes, and gives rise to undulations or waves; these undulations act upon the various organs of sense, and are transmitted to the brain, and the various sensations are produced. *How* they are transmitted no one knows. The ear is the only one of the organs of sense affected by aerial vibrations. Hearing results from *mass* vibrations upon the air; seeing, from

molecular vibrations in ether. The number of vibrations entering the eye in a given time produces all the wonderful modifications of sight.

It has been found, for example, by experiments upon soap bubbles, that to cause the sensation we call *red*, over four hundred trillions of waves of ether must enter the eye in one second. Then, as the numbers increase, the impression experienced by the eye varies through all the colors of the rainbow, until about seven hundred trillions are reached. A greater undulatory movement than seven hundred trillions per second results in *darkness;* the sense of sight ceases. But it is assumed that this rate is exceeded, that the vibrations go beyond the highest extreme of impressions producing light; and here some philosophers suppose that we reach the boundary between matter and mind. It is claimed that certain rates of undulations of inconceivable rapidity give rise to thought, life, *spirit.* It is therefore by molecular and

ether undulations that the sensations of sight, hearing, smell, taste, and touch are produced, and by extraordinary velocity of wave motion spirit is awakened.

This materialism is not of a vulgar kind, but claims to be based on inductive philosophy. Another view, or a modification of the above, it may be worth while to endeavor to present as pointing out the origin of spirit from the standpoint of the materialist. It is assumed that after the lapse of vast cosmic periods in the history of the universe, when matter had condensed into celestial spheres and partially cooled, the most rigid analysis, based on physics as at present understood, could not detect the traces of any modes of force but gravity, motion, heat, chemical action, electricity, magnetism, and light. Molecular action on all spheres was intense, chemical change wrought with vast power; but in time the naked elements became locked up in compounds, affinity and heat waned, upheavals ceased, and the forces,

all but gravity, merged towards a Sunday of rest. At this period, after air and water had formed, and the jarring elements had become comparatively quiet, two refined and inscrutable *modes of motion*, life and mind, were developed by evolution from inorganic atoms. It is assumed that before nature could evolve life and mind all cosmical agitation must nearly stop, and such was the period when man appeared. It is further assumed that mind was developed by matter only in a mature state. Before the atoms coalesced to form mind, the most refined property in the universe, material structure itself was most complex. Mind is too refined a mode of motion to continue long on cosmic spheres; it does not appear until they are verging towards their dotage. Thought cannot exist in the presence of undue heat; hence it does not appear until polar frigidity has set in; and its duration is short, as approaching cold will disintegrate complex atoms, arrest the refined modes of motion called mind, and chaos again ensues.

These views of the nature and origin of spirit are held by a large number of students in science, — men of acute minds and great acquirements. It may be assumed that matter exists as masses, molecules, atoms, and ether, and that there is constant motion; this is demonstrable. Whilst it is possible that molecular motion may be accessory of thought, it does not *originate* mind or spirit. It does not produce *sight* without a principle *within*, back of the lenses of the eye; it does not produce *taste* independent of a principle back of the tongue; neither does it cause the sensation of *smell*. The principle lying back, so to speak, of the organs of sense, which is brought into activity by molecular motion, is *spirit*, and this must be an eternal principle, specially conferred by an Infinite Mind.

It is an axiom never to be forgotten, that, in the stupendous changes and transformations observed in the universe of matter, nothing is ever *destroyed*. This is

an inexorable law. Energy, an immaterial essence, as immaterial as spirit, is indestructible, is never lost, never thrust out of the universe. It is reasonable to infer that the mind principle is incapable of being lost or destroyed; if it is but a "mode of motion" it must vibrate to all eternity.

There is some ground for supposing that indestructibility pertains to the germinal principle of seeds. It is exceedingly difficult to account for observed phenomena without adopting the view. The indestructible principle is independent of the physical seed, which decays, or is changed by the usual agents of change in nature. The germ or life of a seed cannot be seen, measured, or weighed, and the same is true of the embryo principle of an egg, and we know nothing of what it is. It is easy to arrest development in seed and egg, but we do not know that we destroy the life-motion by anything that we can do.

It is probable that the life principle

in animals is, like energy, indestructible; motion ceases, but it may be changed into new forms, or act under new conditions, which stimulate the life when in contact with organized matter. Animals are declared to possess instinct, and instinct has been defined to be an unconscious mode of intelligence. As to the nature of instinct, it is asserted to be habits fixed by heredity; but this view is strange and improbable. The study of the mental capabilities of animals, especially domestic animals, those connected with the household and farm, renders this hypothesis quite unsatisfactory. It is not true that instinct results from, or is fixed by, organization; for in many animals of like organization, instinct in its scope and capacity varies in an astonishing degree. The intelligence of the horse or dog in some instances is of a very low order, in others it is startling in its scope, and closely approximates to reason in man.

A horse, long in use in my family, fre-

quently gave evidence of the possession of mental faculties of a startling nature. At one time it became necessary that the animal should be fed quite early in the morning, in order that he might be used for special service. It was the duty of the coachman to come early to the stable, feed him, and then go to his own breakfast. Upon returning to the stable he found for several mornings that the horse had not consumed his provender, and he was allowed more time to complete the meal. It was observed that this show of slow eating became a habit, and the coachman, without going into the stall to examine his food, allowed him a respite from work of twenty or thirty minutes each morning. To break up the habit, the coachman was directed to put the animal in harness as soon as he returned to the stable, without regarding the unfinished meal. It was then disclosed that the feed-box was empty, and had been so at the times the horse was wanted.

The animal had carried on a deliberate scheme of deception for several weeks, by plunging his nose into the empty feed-box and moving his jaws as if masticating grain, when there was none to masticate. By this trick the horse gained a short respite from work each morning. It is difficult to point out distinctions between instinct and reason in this act of an animal.

A large dog kept at my farm had been in the habit of coming into the farm kitchen for a breakfast of milk. This became a little annoying to the farmer's wife, and one morning she said to him, in a raised tone of voice, "Bruno, you shall have no more milk; go away, and don't you come back here again!" The dog looked at his mistress for a moment, and then turned about, went out of the door, down the walk to the street, and disappeared. Nothing more was seen of him for a week, when the farmer, while in a distant field, heard a low moaning sound in bushes by a wall, and upon inves-

tigation, Bruno was discovered stretched upon the ground in a starving condition. The dog was coaxed to return to the house, where he was fed, but it was several days before his wounded spirit was healed and confidence restored. Unquestionably, the dog would have committed suicide by starvation if he had not been discovered, and the cause of the act would have been grief from displeasure of his mistress.

A belief is quite common among dog-fanciers that the animal understands the import of language when directly spoken to, and this incident is corroborative of the correctness of the view.

From the fact that we know nothing of instinct from experience, and can only form conjectures, it is evident that no satisfactory and reliable explanation of its nature and extent will ever be afforded. Instinct is like mind, but it is not the *whole* of mind. In studying the nature of mind it is impossible for any competent

student to overlook or deny the suggestiveness or correspondences when matter and mind are brought in contact.

In the study of matter we find there is a class of substances, most of them of great complexity and highly organized, which are distinguished as isomeric bodies; that is, bodies, which, although similarly constituted, are very dissimilar in their physical characteristics. We find some most remarkable instances of isomerism in the common substances of everyday life. A notable example is afforded in the ordinary illuminating gas of cities, the chemical constitution of which is precisely like the oil or attar of roses. In the one case we have an invisible gaseous body of exceedingly offensive odor, made up of molecules of matter the same in nature and quantity as enters into the constitution of a volatile oil, with an odor the most enticing and gratifying of any known to man. In the sugars which enter so largely into many forms of food, we

find examples of isomerism which are very wonderful and wholly inexplicable.

The question arises, why may there not be isomerism in mind as well as in matter? Assuming that mind, soul, or spirit is a like principle in men and animals, it is as easy to understand how an infinite variety of modifications may exist, as it is to understand how physical dissimilarities exist in forms of matter of like nature. It should not be regarded as absurd to assume that the mind principle throughout animated nature is similar in kind, but acting under and controlled by different laws which greatly modify its capabilities. The soul, mind, or spirit in some domestic animals is manifestly of a higher order in many of its phases than that which often controls human beings, even those living in civilized society. The affections and emotions of sorrow are often displayed by animals, while human beings are found in whom the kindly emotions are absolutely want-

ing. But this by no means places animals on a plane as high as that of man. It is not a question of superiority in any individual faculty, but of scope or extent of mind power. The scope of this power in man reaches high enough, even in the most degraded, to affect his responsibility; in the highest of animals it does not. While it may be true that the spirit of men and animals is the same in kind, the difference in scope is so enormous as to present entirely dissimilar ends and responsibilities. The inquiry as to the continuance of animal life after death is overshadowed by a cloud so profoundly dark one cannot take a single step over the border-line into this field of research. If it was known that the mind principle of animals is absolutely arrested by physical death, and with the body becomes extinct, the fact might be regarded as affording ground for belief that human souls, those base and low, are sunk in annihilation. In some domestic animals

we have exhibitions of natural gentleness and love, faithfulness and sagacity, which so endear them to us that when death ensues the tears involuntarily flow, and genuine sorrow oppresses the spirit. We place in contrast such animals with men of low, degraded purpose — cruel, treacherous, false, sensual; and to which must we assign the higher place in any system which recognizes justice and the fitness of things? If eternal darkness is to enshroud the mind principle, when it is unfit to survive the decay of the body, which should be blotted out, the man or the animal?

Spirit is as nothing when considered by any or the outward senses, but the inward or spiritual sight recognizes its kind, and views it as the natural eye views external objects. That mysterious inward sense of sight which enables some peculiarly constituted persons to state correctly the time by a set watch when the dial is covered by metal and the

watch placed in a remote part of a room; or which enables them correctly to read printed matter or manuscripts long distances away, penetrates outside the material universe. By this miracle of sight they look through forms of matter which arrest the light rays, and discern the spirit form with the utmost clearness of outline. It is not one or a dozen individuals upon whom rests the testimony supporting such statements, but upon hundreds in almost every habitable land. Neither does the testimony rest upon the weak, the uneducated, the superstitious, but upon those of the highest character and culture, the honored and the trusted, those who adorn life in all its social, religious, and intellectual aspects.

From careful researches, extending over a period of more than a third of a century, I am led to conclude that that rigidity of mind which resists the evidence of the existence in man, under peculiar conditions, of super-sensual faculties, should not be

mistaken for a higher wisdom in which one may confide, but it should rather be regarded as of the nature of arrogance born of conceit, and therefore not authoritative.

Views of the nature of spirit, formed from experiment upon the super-sensual capabilities of man, may be stated to be, that spirit is entity, a something as real as matter, but not acting under or governed by its laws. It belongs to a spiritual domain not recognized by the ordinary senses under ordinary conditions of life. It is real, capable of assuming form, and performing functions corresponding with those which are necessary for man in his material environment. It is that part of us which is indestructible, and which is to bring us into connection with a spiritual world when the movements of the molecules of matter composing our physical forms are arrested. Death brings spirit to view, and gives it that higher position for which it was designed by a Supreme Creator.

THE RELIGIOUS MAN.

It is claimed that man is a religious being by intuition, and that no tribes or races of men have existed who had not some form of religious belief, some method of worshipping either idols, devils, or gods. This, presented as a postulate, cannot be admitted, as it is well known that races have existed, in fact do now exist, who are so degraded as to be apparently incapable of cherishing ideas or emotions which are in any sense religious. Some of the bush Indians on the Pacific coast, and the low, savage tribes living on the shores of Magellan's Straits, have no ideas of any superior being or beings who are objects of love or fear. They do not worship idols or anything in nature; they have no moral sense, no conceptions of right or wrong.

Still, it must be admitted that religion is a well-nigh universal principle or sentiment in human nature; and that this element constitutes a palpable line of distinction between man and animals. In man, where the religious nature is highly developed, it dominates all other impulses of his being, rises superior to all sensual passions, and impels him in directions of peril and suffering. Religion may degrade or elevate, as its standard is high or low; it may be based on the grossest ignorance and superstitions, or on the highest plane of thought capable of being reached by man.

In the earliest stages of man's existence the event of death must have been more startling and mysterious than any other, and hence it was more potent in turning the feeble and perverted mind in the direction of discovering some hidden power or influence superior to that of man. To savage man in a primitive age the life problem had no interest, his curiosity could

hardly have been excited upon the question of his origin, or the mystery of life; but death was an ever-present and terrible fact, and would to the crudest minds open up some misty ill-defined expectations of another state of existence, somehow, somewhere.

The first influence would be that of fear, and hence the early tribal religions, and those of savage nations at the present day fill the imagination with vivid pictures of demons, goblins, and monsters, who hold control in the unseen state, and influence largely the present life.

Hope, love, joy, are emotions almost unknown in a savage and ignorant state of society; even the religion of the early Hebrews is based on the emotion of fear; and Satan, a diabolical personage, is represented as having almost equal power with the great Jehovah. A careful consideration of the different forms of religion which have existed, and which now exist, leads to the conclusion that some ideal of

evil, some Satan or devil, was necessary to any religious system in order to hold mankind to its obligations. The element of fear dominates over that of love, even in modern society, and when men are placed out of control of it they go astray. As education advances, and mankind are more enlightened, and the facts of science become better known, fear will gradually lose its control, and higher and better impulses assume precedence. Religion will no longer need the bolstering aid of Satan, and he will be gradually eliminated from the Christian faith.

The dominating religions of the world, as presented in the history of the past thirty centuries, are found to prevail in southern and eastern Asia, where man earliest attained to a condition of social order, and adopted forms of government which in some respects continue to exist. About twenty-four hundred years ago a remarkable man appeared in India, who promulgated a religion which proved to be

the most popular and effective of any ever advocated by man. Buddha, single-handed and alone, established a religion which, in two hundred years from the time of his death, became recognized as the faith of the largest part of the population of the world; and it is indeed a remarkable fact that, at the present time, Buddhism is the religion of about one-third of all the inhabitants existing upon our planet. A religion which controls the lives of five hundred millions of the human race is exceedingly interesting to the philosophical inquirer. If it is assumed that man accepts that form of religion which is best suited to his nature and wants, then Buddhism is phenomenally perfect in its adaptations; but if we look into the system the fact appears that there is but very little to commend it to the desires or wants of any human being.

It seems natural that selfish man would desire a religion which offers some great good in the present or future state of ex-

istence, a religion that holds out some hope to miserable mortals, suffering and oppressed in this life, of a better condition hereafter; but the faith of Buddha offers no such consolations. In the language of another, "It is a religion which teaches as one of its cardinal doctrines that existence is wretchedness, and the love of it a feeling to be suppressed and exterminated; that the highest happiness attainable on earth is in the extinction of all natural desires and affections, and the only heaven beyond is utter and final annihilation." This view is denied by some writers, but it is essentially correct. A religion of this nature is certainly cheerless and unattractive, and pessimism can go no farther in its most gloomy anticipations. One desirable end of any religion would seem to be to cheer and sustain the spirit in the dark hour of dissolution; but the religion of Buddha is not well adapted to give euthanasia to any of its adherents. It may, however, be that the strength of this sys-

tem lies in that feature which some would regard as most repulsive, namely, that of annihilation. It must be admitted that this doctrine is a welcome one to a very large class of men in civilized as well as in semi-civilized communities, and any support which it receives from philosophy, science, or religion is welcomed with the highest satisfaction.

The religion of Confucius differs from that of Buddha in many essential points. While the latter held that this earthly existence is so bad that the only happiness for man is in death or annihilation, the former held that the present world, as he knew of it in China, is the best possible world, and one to be enjoyed and made the most of. He taught a morality which tended to strengthen and sustain man in his temporal pursuits. His religion was to a large extent elevating, and tended to make mankind better.

When Jesus of Nazareth was on earth, an inquirer approached him with the ques-

tion, "Sir, what shall I do to be saved?" The same question Confucius endeavored to answer in the hearing of his speculative countrymen, although no one made request for him to do so. His answer was that the key to the door of the kingdom of heaven is duty, and that happiness consists in duties well and faithfully performed. "Honor thy father and thy mother" was a command he most rigidly inculcated, and his moral precepts for the most part are of an elevated nature. The Chinese entertained as narrow views of the world at the time of the advent of Confucius as they do at the present. To them there was no world outside of the great empire, and they conceived that heaven was within its boundaries. They were monotheistic in their beliefs, but had very confused ideas of a future life. Into the mists and darkness which prevailed Confucius projected new and higher truths. "What you call religion," he said, "is in reality but an exercise of the imagination: it may represent

a truth or it may not, — we cannot tell; but morality, the doing of that which is right, the performance of the plain and practical duties of the day and hour, — this is the road open to every man, and which will lead every man that follows it to the highest goal." Confucius may be said to have been the founder of a religion without a theology, without a form of worship, without a ritual.

Mohammed, the founder of the Islam faith, devised a religion for man which has proved successful; and he must be classed among the few who have influenced the destiny of the world and produced revolutions, the effects of which will last through all the ages. More than twelve centuries have elapsed since his death, and literature, philosophy, and science have elevated the race to almost the highest attainable point, but his religion remains. It had its birth in a barbarous age, but it survives and flourishes in the bright light of the nineteenth century. At the present time

more than one hundred and seventy-five millions of the human race turn their faces towards Mecca five times a day, and call upon the name of the great prophet. This religious system of Mohammed is remarkable, studied from whatever point we choose. Dr. Johnson, in speaking of the religions of the world, said there were two objects of curiosity, "the Christian world and the Mohammedan world; all the rest may be considered as barbarous."

Great Britain, one of the most advanced of modern nations, has more Mohammedan subjects than Christian; her government extends over more of the followers of "false" prophets than over those of Jesus.

Islamism in some of its aspects is strikingly like Mormonism. "We believe," said Mohammed, "in God, in what hath been sent down to Abraham, and Ishmael, and Isaac, and Jacob, and the tribes, and in what was given to Moses, and Jesus, and the prophets of the Lord." The Mormons profess to believe all of this, but there is

one thing more which they believe, and to which they attach superlative importance. They believe that they have in the Book of Mormon a lost revelation, a book which should be appended to the canonical books of the Old Testament, and be regarded as of equal authority. They also believe that they have had a "true" prophet in Joseph Smith, who was competent to interpret the Book of Mormon, and set forth its doctrines. The disciples of Mohammed believe they have an authoritative prophet, and that the Koran is the final chapter in a long series of revelations. The prophet of Mecca and the prophet of Nauvoo alike recognized the sacredness of the biblical records, but they proposed additions and amendments, and some new interpretations which give to them a wider scope and a changed meaning. Both of these prophets have met with astonishing success in gaining zealous adherents, and their distinctive careers furnish fruitful topics of study to theologians, historians, metaphysicians, and philosophers.

The world has had many prophets, "false" prophets, who have met with greater or less success in the work of introducing new forms of religious faith. The histories of these men, regarded as authoritative, have been written by their enemies, and therefore must be viewed with reasonable suspicion. As a class they appear to have been thoughtful men, moody, nervous, sensitive, fond of solitary contemplation, not in sound physical health, inclined to day-dreams, trances, and silence. They have not all started out with the design of deceiving mankind upon matters of momentous interest, but their doctrines have been the legitimate offspring of perverted mental processes and diseased imaginations. They have not all been vagabonds; dishonest, untruthful, ignorant, treacherous. The great prophet of the Islam faith was distinguished in early life for uprightness of character, probity, and courteous demeanor. His scrupulous honesty brought him the title, El Amin, the

Trusty, a high compliment to an Arab youth in a barbarous age. It is not necessary to regard these prophets with special reverence, but they are entitled to fair treatment at the hands of historians, and the unbiased judgment of scholars and critics.

The brief allusion made to three distinctive forms of faith bring to view the dominating religions of the world. In Buddha, Confucius, Mohammed, we have the founders of three systems of religion, the tenets of which have influenced the lives of thousands of millions of human beings, and which to-day are the rule of faith of two-thirds of the earth's inhabitants. It would be interesting to consider the religions of the old Roman world, of Greece, of Egypt, of Persia, but the purpose had in view does not call specially for such consideration.

The religious man of more modern and highly civilized nations, where science, literature, art, learning of every kind, come

in as important factors to influence the problem, must be more specifically discussed. All pervasive, popular religions are of ancient origin. We have no distinctive modern system of faith which influences whole nations or large bodies of men.

The doctrines of Emanuel Swedenborg, though pure and elevating, have never attracted men in masses, or secured a commanding influence. They present a distinctive form of faith, but do not essentially conflict with the precepts of the Christian system. The Mormons are a class of religionists who stand aloof from the rest of mankind, and are as exclusive as were the adherents of ancient Judaism. The Mormon is the only *new* religion coming by special revelation, that has been introduced to man during the past ten centuries, and it seems probable that it has gained a foothold which will insure its existence for a long period of time, notwithstanding its absurdities and corrupt influences. A

religion based on ignorance, and which panders to the gratification of human appetites, is not necessarily short-lived. Man loves empiricism, that which is novel, marvellous; and when a new religion appears having these elements, and which presents some human being as a demi-god, to be worshipped, he is ready to listen to its overtures.

If there were thoughtful men living at the time of the birth of the child Jesus, men of intelligence and sagacity, equal to taking a broad view of the world, they could not have been optimists, as the period was so gloomy that even the glad sunshine must, to the masses of mankind, have seemed to be tinged by dark shadows. It was an uncongenial age in which to introduce a new religion based on love.

Force, controlled by human selfishness, held the world in its iron grasp, and pagan Rome regarded all mankind as its vassals. The eye of an observer could not be turned in any direction without gazing

upon flowing blood; but flowing tears were seldom seen, for if one wept it was in secret. It has been observed that in rude states of society, where excessive cruelties prevail, the emotion of sorrow seldom culminates in tears, — woman shrieks, howls, and uproots her hair in hours of grief, but the eyelids are not moistened by tears; the fountains which well up so copiously under the influence of emotion in Christian society are dry in savage life. So base were tyrants governing men at the beginning of the Christian era that an order for a general massacre of infants throughout a populous district, to meet an end, was given without the slightest remorse; and so crushed were the governed, that the right to accomplish such an act was hardly questioned.

Man, as a religious being, prior to the advent of the great Teacher of Nazareth, was to a considerable extent elevated and improved by the religious sentiment, but

no one of the prevailing systems was competent to lift him into the high position for which he was designed. The moral maxims, the wise inculcations, found in the great religions of southern and central Asia were of an elevating character, but so encumbered by mysticism and superstition that they retarded progress in many directions. The pagan system of Rome presented scarcely a humane or uplifting suggestion. It was based on selfishness and cruelty. Judaism, which held control of the Jews, was a religion having its bloody altars, and a priesthood exclusive, conceited, selfish, factious. The externals of this religion, save in the matter of human sacrifices, appear to have been but little less repulsive than those of the Aztecs in the time of Cortes.

The religion of "peace on earth and good will to man" came as the rosy morning light, which serenely and noiselessly breaks in upon the mists and darkness of night; it came as a messenger of

peace who emerges from the ranks of the enemy in the lull of battle, — as the healing north wind comes to crowd back the sultry germ-impregnated air in times of desolating plague. The world could not at first understand the message brought to earth by the Prince of Peace; it was of higher, holier import than anything which had before fallen upon the ear of man. Such a message could not be of earthly origin; it must be divine, — it *was* divine.

The religion taught by Jesus was not mere formalism; it was not bolted to any system, had no ritual, but it was spiritual and ethical. The God which he brought to view was a God of love, the universal Father. The Jehovah or God of Judaism was harsh, unforgiving, relentless; the God of Jesus is moved with pity and filled with compassion. "Behold," he said, "I give unto you a new commandment: That ye love one another." "He that loveth not, knoweth not God, for God is love."

"There is no fear in love, but perfect love casteth out fear, because fear hath torment." He knew better than any one what *torments* had afflicted mankind through *fear*, and it was his mission to banish fear and introduce love. This was a new departure in a religious system, and the world was incredulous. He practically abrogated the old dispensation, but cherished a regard for what was good and proper in the established laws and usages of the country. He broke in upon the austerities of the Jewish Sabbath by attending upon all proper duties on that day, and he denounced the ceremonials and perverted usages of the temple.

All the teachings of Jesus were elevated in spirit and pure in sentiment. He said to his followers, "Love your enemies, bless them that curse you, do good to them that hate you, and pray for them that despitefully use you and persecute you." "Judge not that ye be not judged." "If ye forgive not men their trespasses, neither will your

Heavenly Father forgive your trespasses." "Take heed that ye do not your alms before men, to be seen of them." These teachings were not bare negations, but explicit and practical, and the life of the teacher was as pure and noble as his teachings.

Many thoughtful men are troubled with doubts respecting the claims of Jesus as being divine. They hesitatingly admit he was from God, and endeavor to turn aside doubt by consideration of the unparalleled purity of his life. One of the great statesmen and orators of the present century, Daniel Webster, thought deeply upon this point, and he wrote out the substance of his conclusions, and directed the statement to be placed upon a tablet over his grave :—

" Philosophical argument," he says, " especially that drawn from the vastness of the universe in comparison with the apparent insignificance of this globe, has sometimes shaken my reason for the faith that

is in me, but my heart has always assured and reassured me that the gospel of Jesus Christ must be a divine reality. The Sermon on the Mount cannot be a merely human production. This belief enters into the very depths of my conscience. The whole history of man proves it."

All that is great and noble in man responds to a similar view of Jesus. His doctrines have lifted mankind up from a low condition socially and spiritually, and brought to view a higher life, which we enter upon at the close of our material existence.

In studying the histories of the great religions of the world, we discover one fact which early arrests the attention; it is, that founders of systems have not succeeded in establishing inflexible, enduring forms of faith and rules of practice. It has been the expectation and design to accomplish this result, but misapprehension and interpolation become active agencies as soon as founders of faiths are

removed by death. Some of the fundamental teachings of Buddha, Mohammed, Confucius, Zoroaster, have been almost eliminated from their systems, and perverted interpretations have changed the meaning and intent to so great a degree as to produce revolutionary results. It is true, the pivotal principles, the active externals remain, but the design, the object, are to a large extent lost sight of, or falsified. Even the Mormon faith, a system devised by Smith, barely survived the life of the founder. He did not introduce into his system polygamy, and there is no evidence that he intended to do so; it was a doctrine reserved to be revealed to a successor, a sub-prophet, Brigham Young. There have been secondary prophets and authoritative apostles connected with all religions, who have taken great liberties with the religious systems of their masters, and permanently perverted their intent and meaning.

The plain, simple doctrines of Jesus have

suffered at the hands of his professed followers. He had scarcely cast off his material nature when quarrels arose between his brother James and Paul and other noted apostles, and the questions at issue were not trivial, but involved principles and doctrines of vital interest to his great designs and plans. The church at Jerusalem was obliged to yield to the tact and eloquence of Paul; and the all-embracing arms of Jesus were permitted to be extended around the uncircumcised Gentiles. If Paul had not lived it is impossible to know how great might have been the influence of the life and doctrines of Jesus upon the world. Paul was eminently a constructor, a theologian, an organizer; the teachings left by the Master, so informal and fragmentary, perhaps required an organizer to adjust them to the needs of an ignorant world.

It is impossible, however, to avoid the feeling that in the teachings of Paul we have the groundwork of those systems of

man-made creeds which have so disastrously afflicted mankind. Nothing could have been further from the design of the gentle, peace-loving Jesus than to have divided his believers by sects and creeds. He hated dissensions, jealousies, quarrels, commotions, and struggled hard to put his doctrines into form of words so plain that the "wayfaring man," the uneducated, the men of "penury and want" might clearly understand them, without exegesis, without expounders.

The religion of Jesus is eminently spiritual; it has to do with man's spiritual nature, and fully recognizes the fact that he has such a nature. He was constantly overshadowed by angelic influences and pervaded with spirituality and love. He taught the divine fatherhood of God, the universal fraternity of man, and the perpetual ministry of angels and spirits. One of the most distinctive of his teachings was, that the thick veil which hides the seen from the unseen world is not under

all conditions impervious to human sight; that angels and disembodied spirits are constantly passing from one to the other, and that the two worlds are in close connection. He worked miracles, and promised that they should be continued: "He that believeth on me, the works that I do shall he do also; and greater works than these shall he do." No declaration can be clearer or more explicit than this. If that which is recorded as history be authentic, it appears that miracle-working was possible in the church for several centuries after the death of Jesus. St. Augustine, one of the most orthodox of the ante-Nicene fathers living in the third century, says, "They ask me, why do the miracles which, as you say, were performed in former times not occur to-day?" and he replies, "At this very day a multitude of miracles do occur. The same God who worked the signs and wonders which we read of works similar prodigies still by such persons as he sees fit to select." The promise of Jesus

continues, do the gifts follow? If not, why? John Wesley, the founder of Methodism, presents this answer: "The grand reason," he says, "why the miraculous gifts were soon withdrawn was, not only that faith and holiness were well nigh lost, but that dry, formal orthodox men began even then to ridicule whatever gifts they had not themselves, and to decry them all as either madness or imposition."

Science denies the possibility of miracles on the ground that they transcend the laws of nature. There might be force in this assumption if it was certain that all the laws of nature are clearly understood. Science is now at work upon the border land between the known and unknown. The lifting mists of the unknown land admit a dim and shadowy light, which gives promise of further widening rifts in the darkness, so that the explorer may enter and study the higher or occult laws of nature.

The importance of the specific transac-

tions of Jesus, called miracles, has long seemed to me to be greatly exaggerated. It is certain that the Master himself regarded them as having but little to do with the real objects of his mission. He never performed an ostentatious miracle, never an objectless one. They were not done with any view of sustaining his claims to divine power, not to awe, not to extort adulation, not to provoke worship, not to incite obedience. The miracles he performed came in accordance with natural events; they served to meet exigencies, to accomplish some great good. He enjoined those who were benefited by them to remain silent, not to proclaim the acts in the ear of the multitude, not to speak of them even. "Go," he said, "tell no man." He seems to have regarded this power as one easy of exercise, unlimited in its capabilities and beneficent in its ends. He employed as the basis of his acts the agents in nature in close proximity, as when he restored sight to the blind

man, when water was changed to wine, when the multitude were fed with the two small fishes.

Viewing these transactions from the standpoint of the chemist, it may be of interest to consider a single example, the changing of water into wine. Wines, as a class, differ from water in holding several substances which give to them distinguishing characteristics. Among these are sugar, ethers, organic acids, and alcohol. Water, constituted of the elements, oxygen and hydrogen, does not hold in chemical combination one of the elements needed by molecular change to form wine, but it does hold in *solution* the wanting element, namely, carbon. Water, at ordinary temperatures and atmospheric pressure, is capable of holding an equal volume of carbon dioxide, which may be absorbed from the atmosphere; and as that supplies carbon, it is possible to have in water every element needed to form wine, namely, oxygen, hydrogen, and carbon. The sugar

is made up solely of molecules of water combined with carbon, the ethers are formed of groupings of the same elements, and so are the acids. The alcohol results from slight molecular change in sugar; and thus it is seen that if we had the power of controlling molecular changes in water we could at any moment transmute it into wine. Chemical laws, as we understand them, do not admit of such molecular disturbances; but to the Master, who possessed a deeper insight, the hidden laws of nature were open, and the divine power to direct them was his. In all instances he worked through, and very close to nature; he was indeed of nature, constituted of material atoms outwardly; but the spiritual man, the inward nature, was transcendent in power and beauty.

As has been intimated, the alleged miracles of Jesus seem to me to have but secondary importance. If his ministrations on earth had been unattended by them, the higher and more sublime miracle

would remain, — that of his blameless life and perfect example of unselfishness and love.

The religious man, genuinely and fully influenced by his teaching, and unwarped by creed or sect, presents the highest type, the most pleasing example of the perfect man to be found upon our planet.

WHAT OF DEATH?

PHYSICAL death is the last in that procession of events which constitute the drama of life. It occurs in obedience to an inexorable law of nature, and should be regarded as no more irregular or disorderly than sleep or fatigue. Chemically viewed, death is an interesting problem, inasmuch as it shows that law under no circumstances permits of variation, and that the highest organized matter must fall from its superior position to the inferior; must cease from its play of chemical activities, and take its place again in the dead inorganic world. The rounded, symmetrical form of the child or fair woman, so beautiful as to command admiration of every one, and enlist the skill of painters and sculptors in perpetuating

on canvas or in marble the pleasing outlines, must be subjected to the same chemical reactions which change the most repulsive forms of organized matter.

The tension which has been maintained throughout life between chemical forces on the one hand, and vital force on the other, ceases at death, the citadel of life capitulates, and chemical change proceeds in its destructive work, with no foe to oppose its progress. Thus ends material man.

The dread of death may be partly natural and partly due to superstition or religious bias. The old mediæval ecclesiasticism, upholding a theology in which hell, purgatory, and devils were objects brought most prominently before the attention, had much to do in fastening upon the minds of succeeding generations a terror of death. Pagan religions, ancient and modern, have little or nothing in them calculated to afford a pleasing hope or sustain the mind in its contemplation of the hour of dissolution.

Notwithstanding the prevailing dread of death, it cannot be denied that the Infinite One, in the matter of dying, is beneficent to everything that lives upon the earth. In all inferior animals the foreknowledge of death does not exist, and it is an event of which they are not permitted to learn anything by observation. The slaughter of animals may occur in the presence of others, and no fear is excited as the work goes on. In the slaughter of animals, if quickly and humanely accomplished, there is no suffering; and when death occurs from accident or in the course of nature, the suffering is doubtless insignificant. We have no means of knowing what may be the nature or extent of pain in animals; it must be, however, far less disturbing than in the case of man.

Human beings, in a general way, cherish a fear of death, but it does not trouble them in any of the pursuits of life; it is not the source of positive unhappiness to many during the term of the longest existence.

All the direct terror is confined to or near the moment of death; and, in the absence of morbid mental conditions, it is not then a disturbing influence. At the worst, the dread of death does not prevail in individual instances during one-third of the period of existence. During the period of youth we have no more fear of death than we have of sleep; in adolescence the active cares of life absorb all the attention, and death is practically regarded as impossible; in old age we feel that death is not an enemy to be dreaded; or, by that curious mental process by which the mind is bent to the inevitable, slowly and imperceptibly, the event is regarded with perfect equanimity, or even happiness.

Instances of death from purely natural causes are rare. By natural causes is meant death from the normal decay of the vital forces, when metamorphosis of tissue ceases, and the spiritual nature relaxes its hold upon the material, the work of life being accomplished. Fully one-half of

the human beings who people the earth die from accident, and one-half of the remainder from defective organizations arising from heredity. Accidents which terminate the physical career of man are not necessarily violent or sudden in their nature. A severe chill, arising from unexpected or unavoidable exposure, which terminates in fatal pneumonia, is of the nature of an accident, and so are sun-strokes, lightning-strokes, malarial fever, etc. All zymotic or germ diseases which decimate populations come to individuals from accident of location or exposure. Combatants in war die from accident, rarely from natural causes. Hereditary taint, as a cause of death, fills up wide gaps in our bills of mortality. The imperfect physical organization of a father or mother is transmitted to children with fatal results. The wail of woe which arises in all lands from improper and almost criminal marriage is pitiful enough, one would think, to startle the most careless and indifferent, and lead to

devising means to mitigate or remove the evil.

Nature is not always kind, or at least seemingly not so. Her one grand intent of evolving a universal perfection is not carried forward without pain and misery. Progress, or advancement toward the good, is not always attended by happiness. Man only attains the highest good through suffering, and this is a lesson of such universal application that it cannot well be overlooked. Moral and physical evil is in the world for a purpose; the purpose being to bring to view, by contrast, the desirableness of the good. Evil is intended to be disciplinary, and it is well to heed its lessons.

There is no evidence to show that nature intended death to be cruel or painful to the mind, or physically painful to the body. The natural man should know no more concerning his own death than his own birth. He comes into the world without the consciousness of suffering; and if the

perfect law be fulfilled, he will die oblivious to all pains, mental and physical. At his birth, he sleeps into existence, and awakens into knowledge; at his death, he dozes into sleep, and awakens to a new life.

Dread of death arises from two prominent causes: fear of physical pain, and uncertainty in regard to what comes after death. The concurrent testimony of all medical men who are called to sit by the bedside of the departing is, that mankind entertain greatly exaggerated notions of the suffering in physical death. Notwithstanding, in our present social state, we so frequently thwart nature and violate her laws, she still vindicates her intentions, and gives true euthanasia to most, and often where it is least expected. No phenomenon in nature is more wonderful than physical death, as the event comes to the notice of physicians under all circumstances incident to the duties of the profession. Death, by nature, is a kind of waking sleep; the faculties of the mind,

without pain, or anger, or sorrow, lose their way, retire, rest. The man, strong in intellect perhaps, is reduced to the instinctive; the consummation approaches; the deep sleep that falls so often is the sleep that knows no waking; and without pain, or struggle, or knowledge of what happens, the disenthralled spirit departs. This is natural death, and of the nature which would befall most, if the free will, which has been given doubtless for wise purposes, did not lead us into antagonism with nature's laws. Sudden and violent deaths are usually painless or nearly so, although often to the observer they do not seem so. A fall or blow, the passage of a bullet through vital organs, incised wounds, deep into the tissues or viscera, influence instantaneously nerve centres, and partial insensibility occurs, so that if fatal results follow speedily there is but little suffering in the act of death.

In great calamities which befall communities, where numbers perish, the mind

is filled with sublime awe, and the emotions are stirred to the utmost, but the bodies subjected to the fatal casualty are so killed that they have not time to know or feel.

In experiments with induction coils of great power, I have frequently, through inadvertency or accident, received powerful currents through the hands and limbs, so that instantaneous temporary unconsciousness occurred. They would have caused death had they been directed to vital parts, and in that event it would have been wholly painless. The fatal force moves so rapidly that impressions of sense have not time to reach the brain before the mind is incapable of acting through the organ, and hence there can be no suffering in death by lightning-stroke. Sudden death is never undesirable unless it bears heavily upon the sympathies and external condition of survivors.

Death resulting from protracted and hopeless ills, as cancer, consumption, broken heart, etc., is not without its consola-

tion. Death is often welcomed, not as an enemy, but as a courted friend. We have, in the instance of a distinguished Southern senator dying of cancer, an illustration of the serenity which may come to one under apparently the most deplorable circumstances. In the declaration made by the sufferer, that "he was never happier in his life" than while watching the progress of the disease and waiting for the end, we discover the action of that strange but beneficent law of reciprocity which prevails so widely throughout nature.

There are few evils or conditions in life which come under observation, which are not less afflictive to those involved than they seem to the observer. An instance of great apparent affliction came under my notice, where the heads of a family, husband and wife, both in middle life, were sick of incurable diseases in the same room; the husband from suppuration of an encysted bullet in the cavity of the lungs, the mother from cancer of the

breast. All the circumstances were sad; the parties were highly intelligent, poor, and dependent, the physical suffering was great, and they were among strangers. There appeared to be nothing ameliorating in the cases, but the sufferers were cheerful and even happy. Life was hardly a question of days with either, and yet they were interested in the affairs of the world, in passing events, and continued so to the end, which was painless and peaceful. Like instances are not rare in the experience of every physician.

In lingering death from consumption, that disease which is so widespread in this country, painful as it is, even terrible to witness, the action of death, though it may be physically hard, is not usually cruel. It strikes the young largely, in whom the hope of life and the belief in life are strong, and the victims are never without hope of recovery. They live to the final hour in happy plannings for the future, and die in the dream.

The lesson we have to learn is, that the Supreme Creator is beneficent even in the act of death; if there is terror, sorrow, it is made terror, made sorrow, and does not come by nature.

Euthanasia does not belong exclusively to any one nation or people, nor is it an attendant upon any form of religious faith. It belongs to all, and comes to all. The Christian faith supplies views of the life beyond, better calculated, when rightly interpreted, to afford euthanasia than any other. The teachings of Jesus are assuring, and abound in hope of a higher life beyond; but he was careful, doubtless for wise reasons, to present no clear and definite views, such as would banish doubt and controversy. The expounders of his doctrines, though contemporary with him, have not thrown any clear light upon the nature of a future state of existence, but they have emphasized the great truth that man shall live again

The form of allegory and parable in

which the doctrines of the Master and his apostles are presented has given rise to great perversions and misapprehension in exegesis, and thereby much suffering has resulted to the Christian world. It is not due to this fact alone that Christian believers have been divided and sub-divided into ecclesiastical bodies and sects, but it has had much influence in accomplishing this result. The doctrines of Jesus, which bring life and immortality to light, should be the guiding star to lead the believer serenely and peacefully through nature's last change, that of physical death.

The mental condition has much to do, in the hour of dissolution, with that happy serenity which is so desirable. This is greatly influenced by morbid physical condition, by erroneous views of events beyond, and by consciousness of a misspent, wayward life. Deeply wretched is the individual who realizes for the first time, at the last moment, that obligations to a moral and religious nature have been

neglected through life, that sin has usurped the place of the good and right, and that there is no fitness, no preparation for a higher life, in the next state of existence.

The act of dying involves two distinct proceedings: the arrest of functional activities in the body, and consequent chemical change; and the evolving of the spiritual nature out of its material environment. It is indeed a most pleasing and significant fact that, in nearly all cases where death is not sudden and unexpected, the mind asserts itself in accordance with its high nature at the moment of separation. A dozen years ago a very interesting and important paper was published by Dr. La Roche, of Philadelphia, on "Resumption of the Mental Faculties at the Approach of Death." This paper excited great interest among medical men in this country and in Europe, and was largely commented upon. Its object is to show that sick persons, where the mental faculties are clouded by delirium, will in the hour of

death become perfectly lucid and speak with wisdom, with power of memory, and with pleasure; their whole past lives coming into distinct view. The spirit as it is released from the grasp of the material body becomes as it were normal in its capabilities, and affords a clear indication of what it will be the moment full freedom is attained. It is common for patients prostrated by disease, and who rave like maniacs, or talk irrationally, or who sink into a deep lethargic sleep from which they cannot be aroused, to suddenly acquire consciousness, regain their natural condition of mind, become clear in their perceptions, and then in a few moments fall back and die. This fact has been noticed by physicians as far back as the time of Hippocrates, and is indeed spoken of by Hippocrates himself. This noted physician closes a description of some similar cases, in the following remarkable language:—

"As to the state of the soul, every sense becomes clear and pure, the intellect acute,

and the gnostic powers so prophetic that the patients can prognosticate to themselves, in the first place their own departure from life, then what will take place to those present."

Dr. La Roche, in the paper alluded to, shows that the mind becomes clear in death, when the brain is greatly diseased, when inflammation of the coverings is present, even *when there is change in the brain substance itself.* If lucidity of thought occurs in a diseased, disorganized brain antecedently and up to the moment of death, it is a strong argument to show that the mind can act independently of the physical brain; that it is an entirely distinct principle, and not dependent for healthy action on healthy physical condition.

It is indeed a great mystery how the two natures of man are associated, how they are blended so as to exhibit the complicated and apparent contradictory phenomena of life. It is much to know,

however, that a mind, perverted and diseased under the ordinary conditions of life, becomes normal at the moment when the silver cord is loosened which binds the immortal to the mortal.

There is good reason for believing that in every case of death, where the mental faculties are impaired, lucidity occurs antecedent to the final separation, although the fact may not always become known to those in attendance upon the patient. It is also probably true that the mind of every one becomes more or less exalted as the border line of death is reached, and before a complete sundering occurs. In the case of many this exaltation reaches to a high degree, and the mind becomes as it were clairvoyant.

This is the state alluded to by Hippocrates, in the extract from his writings which has been presented. It is a state when the soul becomes illuminated by some wandering rays from that region of light into which it is about to enter. The

mind becomes prophetic, and through the audible voice, or whisperings tremulous and low, strange messages are conveyed to waiting friends; messages of love, consolation, hope, wafted from the unseen land, from departed friends, who can speak through the loosening spirit of the dying.

The dying, those of the highest culture and intelligence, often assert that they are surrounded by spiritual forms of deceased friends, and are under their kind ministrations. This is declared by the cold agnostic and materialist to be but mental hallucination consequent upon the weakening of the brain power; but those open to the higher spiritual influences which are so palpable to the observant and receptive, are not willing thus to coldly dismiss the testimony.

If man has a spiritual nature which survives the death of the body, and which is separated from it at the moment of dissolution, why may not the act of separation under some circumstances be made appar-

ent to those who watch at the bedsides of the dying?

Very many physicians and nurses state that they have often observed some occult appearances or movements at the moment of death, which conveyed the impression that *something* hovered over or departed from the patient.

The interesting work of the late Dr. Clarke of Boston, "Visions," to which Dr. Oliver Wendell Holmes has written an introduction, mentions a striking case of a lady who in dying came under the notice of Dr. C. He remarks that the lady, "after saying a few words, turned her head upon her pillow as if to sleep; then unexpectedly turning it back, a glow, brilliant and beautiful exceedingly, came into her features, her eyes opening, sparkled with singular vivacity; at the same moment, with a tone of emphatic surprise and delight, she pronounced the name of the earthly being nearest and dearest to her, and then dropping her head upon her

pillow as unexpectedly as she had looked up, her spirit departed to God who gave it. *The conviction forced upon my mind that something departed from her body at that instant of time, rupturing the bonds of flesh, was stronger than language can express.*"

Dr. Holmes, referring to this case, says, "Dr. Clarke mentioned a circumstance to me not alluded to in the essay. At the very instant of dissolution, it seemed to him, as he sat there by the dying lady's bedside, that there *arose something*, — an undefined yet perfectly apprehended somewhat, to which he could give no name, but which was like a departing presence." Dr. Holmes further says, "I should have listened to the story less receptively, but for the fact that I had heard the same experience almost in the same words from the lips of one whose evidence is to be relied upon; with the last breath of the parent she was watching, she had the consciousness that *something* arose, as if the

spirit had made itself cognizable at the moment of quitting its mortal tenement."

This testimony does not come from religious enthusiasts, not from the superstitious, not from the weak and emotional, but from sources exactly the opposite. The private note-books of physicians contain on almost every page memoranda of like nature.

It may be that the Supreme Creator is willing to bring his children into closer relationship with the unseen world, to afford them some glimpses of the actualities of their spiritual natures. But if death was known absolutely to be the end, known to be but the introduction to the darkness of an eternal night, no greater indifference could be manifested than is observed around us.

The mists of doubt settle heavily upon all who claim to possess a vision extending further than the boundaries of gross matter; even the testimony of the unimpeachable and pure, those in whom we con-

fide in all the relations of life, is crushed by suspicions which are not alone unnatural, but unjust and cruel. If the spiritual eyes of dear ones are opened even at the impressive hour of death, by which some glimpses are afforded of the unseen realities beyond, the receptive faculties of the mind are closed, and the messages are disregarded through unbelief.

It may be that we too impatiently consign to the realm of vision, hallucination, fallacy, many important truths, which are designed to widen the boundaries of human knowledge and promote the highest good of mankind.

AFTER DEATH, WHAT?

As in ancient times all roads led towards Babylon the magnificent, so all earnest modern thought leads towards the solution of the problem of man's destiny after this life is ended. The old inquiry, "If a man die shall he live again?" still presses upon reflecting minds, and none of its intense interest has been lost since the question was asked centuries ago. The world had its philosophers long before the dawn of modern civilization, and they discussed the problem with the ardor and acuteness of great minds, and constructed systems of philosophy which even now have devoted followers. Plato, Pythagoras, Socrates, Pericles, Anaxagoras, were men competent to grapple with any of the problems of life under the light they had,

but that light was dim indeed in contrast with the diffusive beams which light our pathway.

The question which first comes up in the mind at this point is, What aid has science rendered, or what is it capable of rendering, towards the solution of the problem of man's future destiny? That is indeed a superficial view of scientific research which confines its important results solely to affirmations. Science has rendered as important service in demonstrating what is not, and what is true; its negative facts are as instructive, almost, as its affirmative.

The bearing of scientific knowledge upon the solution of the problem of a future life is not sufficiently direct and positive to throw much light upon the field of inquiry; and yet, negatively, it brings to view the impossible in systems of faith.

The belief is widely entertained that material bodies, cast off by death, are to

play an important part in the events of the life to come. It is believed that the identical physical organisms in which spirit had its abode in life are to come out of earthly graves and once more be made living bodies, ready to appear at a "last judgment." This remarkable view arises from misapprehension of the intent and meaning of some passages in the writings of Paul and other of the apostles, which is not strange, considering the language employed.

Science presents considerations and facts which show how impossible such occurrence must be, regarded in the nature of things.

Material man, after death, ceases to be; personality has departed, and the flesh comes immediately under chemical laws. The nature of the forces exerted upon it is the same that breaks up all organized forms of matter, wherever and however existing, Complete disintegration occurs, and the scattered molecules find their place in ac-

cordance with the laws under which they are held in control. It is probable that the gaseous products and the inorganic principles of human remains ultimately find their way into vegetable organisms, as this is a direct pathway, a natural avenue through which they may travel in their downward course. They may indeed continue in a circle of changes, in which they first appear as constituents of the human organism; then passing into the vegetable, then into the animal, they may again appear in the human body, introduced through the medium of foods. This round may continue indefinitely so long as organized matter exists. Molecules and atoms of human bodies, dismissed from service by chemical change, become part of the general mass of earth and air, and are in no way distinguishable. To suppose therefore that they are to be collected together in a spiritual world, for the purpose of meeting the assumed necessities of a "day of judgment," is to degrade one's conceptions of

an all-wise Creator. If the authoritative declaration that "flesh and blood" *cannot* enter into the future state did not exist, the evidence in nature is abundant and conclusive to prove to every intelligent mind that it cannot. Assertions that the Almighty *could* hunt up the molecules of matter, and miraculously rearrange them into the same human forms as previously existed, are the "cut short" arguments of the zealot.

It would be unjust to assume that there is at the present time, in the Christian church, a general belief in a locality in the future life where combustion is maintained through the agency of the element sulphur. It is, however, true that the belief was well-nigh universal until within a period of half a century, and it is still widely entertained in some quarters. The bearing of science upon such a conception of what must occur in a future life is direct and specific. Combustion implies physical change, and consequent exhaustion of

material. A "Lake" of ignited sulphur, large enough to hold all the wicked who have lived upon the earth, must be of immense extent, and calls for an enormous amount of material. The resultant product of this combustion, sulphurous acid, is an irrespirable gas; and its assured presence adds to the difficulties of comprehending, in any physical view of the problem, how fleshly bodies could resist the action of poisonous gases and fires for so long a period as that implied in the term "forever." Any serious consideration of such a problem is unnecessary.

The view of occurrences in a future state which may be called scenic or panoramic, a view which arranges before the mind vast processions of human beings, newly arisen from earthly graves, marching to a place of general rendezvous, where the awful scenes of a last Judgment are to occur; the sound of trumpets, the presence of the angel Gabriel, the wonderful uprising of the "great white throne," on which is

seated no less a presence than the incomprehensible, almighty God; — these views would seem to be not well adapted to survive the period of mediæval ignorance and superstition.

The doctrines of a resurrection of the fleshly body, a day of final judgment, a region or place where physical suffering is inflicted upon the wicked, are still held as fundamental matters of belief by ecclesiastical bodies. They do not however enter into the belief of individual members of religious organizations generally; but the easy, accommodating relationship existing at present between pulpits and pews permits of the presentation of inadmissible dogmas without public dissent and without comment.

Views of the future life, as held by educated clergymen, theologians, and religious teachers, lack uniformity and fixity; they are the views of individuals rather than of organizations. It has been found, I suppose, impossible to embody in any

written creed a distinctive form of belief as to the nature and conditions of life in the future state; and hence the matter has been left to assume such outline as the mental idiosyncrasies of individuals might develop.

The wide diversity of views which prevail is often brought to notice in the pulpit discourses of clergymen. An example of this nature was afforded a congregation in a New England city not long ago, which caused no little amusement on the part of listener

A distinguished professor of theology occupied a pulpit in the morning, and a popular preacher from a neighboring parish in the afternoon of the same day, and both had for a topic: Heaven, and the nature and conditions of life in the future state. The heaven of the professor, a man of a calm, contemplative temperament and scholarly habits, corresponded with his peculiar mental idiosyncrasies. It was a place of profound repose, where phil-

osophical meditation was not interrupted by disturbances incident to life. The Supreme Presence was veiled in awful majesty; and the chief employment was the study of his incomprehensible nature, and the mystery of the divine government. The popular preacher was of a different make-up, jovial, active, hopeful, not fond of solemn meditation or philosophical speculation. His heaven was a place of much din and activity; it had its social joys, its family relationships, its congenial employments, its far-reaching hopes. The plague of the study of life's problems was banished forever, and light, life, and joy were everywhere. The last preacher carried his hearers with him, and the scholarly professor was left without support.

The biblical teachings upon the subject of the nature of a future life are not, for wise reasons doubtless, made positive and intelligible, and yet the hints and indirect statements are suggestive. In only one instance did Jesus push aside the veil far

enough to afford a possible view from without. In the dark hour of his crucifixion, he assured the penitent thief that there would be no delay in his entering into the new life, and the statement that he would be with him implies social conditions and companionship. There is much more implied in this promise from the lips of Jesus. He intended to convey to mankind the information that not only will death introduce at once the freed soul to a new existence, but the existence will be real, personal, social. He did not say to the thief, this day thy "divine essence," thy "ethereal soul" shall be with mine; but "*thou*," thyself, "shalt be with *me* in paradise." There is nothing shadowy, or dreamy, in this declaration of the divine Master.

There are a few other instances in the ministry of Jesus when he spoke words intended to supply information regarding the conditions of a future life. He informed his disciples on one occasion that

"in his Father's house are many mansions," implying that the life to come has conditions corresponding in some respects with those of earth; that it is a place not to be regarded as a vast whole. "Many mansions" implies many wants and essential differences in taste and inclination on the part of the occupants of that realm. All the fragmentary teachings of Jesus point in the direction of an order of condition after death, in close correspondence with material life, but with the absence of pain, and sin, and death.

The "Old Dispensation," so called, contains but few intimations from the prophets and other writers which shed light upon the problem of man's state after death. The one remarkable narrative bearing upon this topic is found in the 28th, 29th, and 30th chapters of the First Book of Samuel, and supplies the information given by the venerable prophet to Saul, when he returned from the unseen life at the summons of the woman of Endor. The

story may be epitomized as follows: Samuel died, and was buried with distinguished honors, prior to the fatal quarrel between Saul and the Philistines. The prophet came out of the invisible, clothed with a mantle, and in positive terms declared to Saul that his army was to be defeated, and that he and his sons were to die in the conflict. The prophet was right in the prediction: the three sons were killed in battle, and Saul was so desperately wounded, that, upon the refusal of his armor-bearer to kill him, he committed suicide by falling upon his sword.

Samuel said to Saul at the interview the day before the battle, "The Lord will deliver Israel into the hands of the Philistines, *and to-morrow shalt thou and thy sons be with me.*" The prophet returned to the unseen world immediately after the interview. The positive statement that Saul and his sons *were to be with him in the future state*, at the close of the battle on the morrow, is remarkable.

There are certain questions which arise in connection with this statement exceedingly troublesome to theologians and commentators of fixed beliefs, — questions which may as well remain with the disputants.

This story, upon which so much exegetical acumen has been expended during the centuries since the Christian era, is one of the most direct, unambiguous, and explicit to be found in the biblical writings; and no commentator, however cunning or dexterous, can scarify or cut out the narrative without severing the carotid duct which carries life through the sacred canon.

The two prominent instances brought to view, found in the sacred writings, reveal to believers something of the nature and conditions of a future life, and are not contradictory of other hints contained in those writings. In one we have the direct words of Jesus; in the other, those of one of the most revered of the old prophets, freshly returned from the experiences of

the future life. There is a striking similarity in the statements of both. Jesus said to the dying thief, "This day shalt thou be with me;" Samuel said to Saul, "To-morrow shalt thou be with me." No words could more positively declare continuity of life in entering upon the future state than those employed. Also, the direct inference is that the good and the wicked enter at death the same spiritual world. Jesus and the penitent malefactor, Samuel and the wicked Saul, are declared to be together in that world. It is further taught that there is a door of communication open between the two worlds. Both Jesus and Samuel died and were buried, and both returned to the physical life again, having the physical form, arrayed in clothing, with sight, hearing, and voice, and they again participated in the affairs of the world. The declarations and events prove identity and personality in the future state; that life there has correspondences with the life that now is.

As a logical inference, we have no right to assume, because different classes are brought together in the new life, that their conditions are not dissimilar. All classes are associated together here, but the conditions under which they live are widely different. Jesus and Samuel in life associated with the extremely wicked as well as with the virtuous and good, and there was no incongruity, no incompatibility discovered in the association, except by the hypocritical Pharisees in the case of Jesus.

Neither the divine Master, in the words spoken to his suffering companion on the cross, nor Samuel in those spoken to Saul, promises happiness or unhappiness in the state upon which they were about to enter; they only assert that they will be with them.

What has been here presented must be regarded as a logical, unbiased view of the teachings of the sacred writings, so far as it is contained in the fragments

brought under notice. The general drift of the scriptural writings assumes that there is to be a vast difference in the condition of the evil and the good in the future life, and this view is supported by the analogies of life and the interior sense. An evil life on earth is directly opposed to domestic and social happiness, to progress in moral and intellectual advancement, and to the attainment of any good. Of the state of the base and low hereafter we have no positive knowledge. The individual entering upon the new life must carry with him much of the terrestrial impress, which will continue for a longer or shorter time.

Life involves continuity, it must be the same life continued under new conditions. It cannot be that consciousness is broken; the united testimony of observers at the moment of death sustains the view that, as the new conditions open at or an instant before the absolute sundering of the two natures, the mind or soul is endowed with

perfect consciousness, so that the individual is not lost in ethereal mist, an ocean of nothing, at the new birth.

If, then, the spiritual man passes at once into the new life, what meets him upon the threshold? To him the experiences are wholly new, wholly untried; how can a soul, precipitated into conditions involving such vast change, be prepared to meet them? The blind man, suddenly restored to sight by the surgeon, is not permitted to gaze at the noonday sun, is not permitted even to walk abroad in its diffusive light, until the organs, by gradual exposure, become fitted to the new conditions; and so, without doubt, the emancipated soul is not at once transported to an "effulgent heaven" (whatever may be meant by the term so often used), but hovers nearer to its terrestrial associations, distinctly separated from them, but resting under their shadow.

Man, by death, does not pass beyond the directing hand of the great and good

Being who provided so perfectly for all contingencies incident to his birth. The loving mother, impelled by an instinct which she can neither understand or resist, at enormous cost of personal comfort, and often at the risk of life, nestles the helpless infant upon her bosom, and from the deepest fountains of her own nature provides the pabulum suited to the tender being placed in her charge. It is more than probable that the departed, upon their entrance into the future life, will meet those who will be guides and supports, will be all that earthly mothers have been; and to many the same mother, gone before, will once more be present to take them by the hand and direct them forward in the new life.

If, upon entering the next state, one impression or emotion is more prominent than another, it will be undoubtedly that of *surprise*. Human beings enter that state under such diverse conditions, with conceits, opinions, prejudices of every kind,

that one must be, as it were, transfixed with amazement upon fully realizing how far aside from truth have been those conceits. The first surprise will probably be to learn how naturally and easily the spirit glides into its new condition, and how real and practical is the life upon which it enters. Those expecting to be engaged at once in psalm-singing and other of the peculiar exercises which would bring the heavenly hosts into resemblance to a vast terrestrial camp-meeting, must find that the Supreme Father has provided other and higher employments for his emancipated children. There will be surprise that a personal Deity does not at once come into view; and the absence of a "throne" and the paraphernalia of kingly authority must be not only surprising but disappointing to thousands.

The idea with many is, that time and individual employment cease with the close of life. This view cannot be correct, as it is not in harmony with the design

and object of creation. Time, as it is noted and regulated in the physical existence, may no longer continue, but that time ceases to be recognized is a view without justification. As regards employment, no need of the human soul is more fundamental; it must be sustained by effort, and that probably whether it is in the carnate or incarnate condition. There must be earnest work in the future life, and the field for effort may be even wider than it is here. Thousands of untaught, distressed spirits pass into the new life every hour, as we reckon time, and it is certainly no far-drawn conclusion that they will need instruction and guidance. These views are clearly within the domain of speculation, but they are founded upon analogies and correspondences open to every one's observation.

We are unmistakably involved in much mystery regarding what is to be; and to many the impression of mystery is so overpowering that it engenders doubt — doubt

as to the *possibility* of a future life. The mind insensibly gravitates towards agnosticism, unless upheld by religious faith and a close study of the nature and needs of the human soul. We have important lessons taught in what has been accomplished by scientific research. The faithless and the doubting may with profit turn to the records of science; they will thus learn that wonders and mysteries, great almost as those possible to be realized in an exchange of worlds, have been brought within the comprehension and control of mind. Do we not every day converse with unseen friends long distances away; do we not recognize their familiar voices, in homes separated from us by rivers, woods, and mountains? These voices come out of the darkness, guided by a frail wire which science provides as a pathway. Even when the curtain of night is drawn about us the voices are heard, and we have not the shadow of a doubt of their integrity and identity.

And further, have we not wonders of sight which startle us by their significance? Is it not true that when abroad we are open to the view of unseen observers long distances from us, and our every act and movement known? The excellence of optical instruments is such that I have seen the motion of the lips of persons in conversation, while sitting on a house balcony three miles distant, the observed, of course, wholly unconscious of being seen by any one. If our friends in this life, dead to us (hidden as they are by the shroud of space), can be seen, and we can hear their voices, their shouts of laughter, the words of the hymns they sing, the cries of the little ones in the mother's arms, is it very absurd to anticipate a time when those dead to us by the dissolution of the body may, by some unknown telephony, send to us voices from a realm close at hand, but hidden from mortal vision?

WHERE?

If a summons should come from the Supreme Being, requiring the inhabitants of earth to leave their abodes within a given time, and remove to another planet fitted up for their reception, the order, if given even with assurances that the new home was far superior to earth, would be received with alarm, and fear would be stamped upon every countenance. The mandate would be obeyed reluctantly, and removal delayed to the latest moment. When, however, the mighty emigrating column was formed and put in motion, fear would give way in part to curiosity, and inquiries would be made, one of another: Where is this new world to which we are summoned? Does it resemble our earth? Has it an atmosphere, has it oceans, rocks,

woods, streams, houses, animals, birds, fruits, flowers? Is it cold or hot? Will clothing, horses, carriages, ships, railways, and steamboats be required? Who will safely conduct us onward, who will meet us and impart information upon our arrival? These and many other questions would be asked, but no one could answer even a single inquiry. While none of the living expect to receive a summons of this nature, it is certain that every inhabitant of our planet has positive orders to leave it at some undivulged moment, and no one of sound mind supposes that he can evade the summons. Mankind know that in death they are not ordered to another planet, with its physical conditions and needs, but where they must go they have no knowledge. The feeling of fear which pervades the mind in contemplating the great change often becomes subordinate to curiosity, and an array of questions corresponding with those suggested come up in the mind and wait for a response.

No one of the interrogatories possesses greater interest or is oftener heard than that which has reference *to place*. Where *is* the unknown world? Where shall we go when death overtakes us?

There is but little that can be postulated regarding the place where the soul finds rest at the close of life. Science has only negative testimony to offer, and the teachings of the Christian religion are singularly unmeaning and vague upon the subject. There is no statement in the histories of Jesus, none in the writings of the apostles, which convey any clear idea of where the spiritual world is. It is probable that no one of the writers had greater knowledge of the matter than is possessed by men of our epoch; and Jesus, knowing that in no form of words could he convey to the ignorant men around him even an imperfect idea of it, refrained from discoursing upon the subject. It certainly was not necessary to the success of his mission that he should reveal the great

secret, however much it might gratify the curiosity of those eager to ask questions.

The views of the future world which prevail among many devout Christians are largely drawn from the book of Revelation, and whoever wrote the book is responsible for introducing into men's minds notions which may properly be designated as fantastic. The writing is of the nature of an incoherent dream, and probably not designed to convey information regarding the future world. Ideas of a "kingdom" with cities surrounded with walls, and having massive gates, belong to an age prior to the invention of gunpowder and eighty-ton guns.

The future world has been for centuries regarded as a fixed locality, situated somewhere in the unknown regions of space; and ideal conceptions give to it materiality corresponding with that of our own little planet. The language of Jesus, where allusions are made to the future state, conveys impressions of a locality; and in this

we see evidence of divine wisdom, as it would have been impossible to have held his followers to any satisfactory realization of another life, without illustrations and comparisons adapted to their imperfect and limited knowledge. There is no evidence that in his acts of devotion he assumed attitudes, or directed his attention towards any fixed quarter. He is spoken of as having "looked up," and this would be natural, as he was constantly in the open air, and there is no direction in which the attention is more naturally drawn, when in contemplative moods, than towards the blue vault over us, so full of beauty and mystery. It is usual in acts of devotion among individuals and religious bodies to turn the gaze upwards, and to this there can be no objection. It may serve to direct the mind into channels promotive of awe and sublimity, and thus develop exalted feeling. If, however, we assume that attitude with the supposition that the future world is above us, and that there is the

dwelling-place of the Almighty, the supposition must be groundless. The terms "up" and "down" are vague and confusing enough when used in connection with terrestrial concerns, but when applied to the regions of space they are absolutely meaningless. We live upon a little mass of rock which is in ceaseless and rapid motion. In its flight around the sun it has a velocity almost inconceivable; and, turning as it does once every day upon its axis, its position is one of constant change. If the unknown world was "up" at meridian of any day, it would be "down" at the hour of midnight of the same day; and the movement of the earth in its orbit is rapid, it does not stop for an instant in its flight. These are, however, but elementary facts, brought to view only to call attention to some popular errors in celestial dynamics. There are other and more weighty considerations which have a bearing upon one's conceptions of a fixed place or locality as the home of disembodied spirits. The

mechanics and dynamics of our solar system, with its sun, planets, satellites, asteroids, and meteorites, seem dwarfed in comparison with the vast stellar universe which is in part open to view as we gaze into the blue vault over us.

In discussing this question of a place, it becomes necessary, as a preliminary, to bring to view some of the remarkable facts and results of modern astronomical research. At the time of the advent of the founder of the Christian faith, there was no existing knowledge of the mechanism of the universe. Solar, planetary, and stellar physics, as now understood, were forms of knowledge of which no one living at that period had the slightest conception. All the learning of the age was based on wrong hypotheses, and superstition usurped and controlled the best powers of the mind. A superficial consideration even of these facts will serve to show how exceedingly difficult was the work of the divine Master, in establishing in the minds of his followers

correct views of God as exhibited in his works. They did not know of the nature of his works, and therefore could not gain insight into his plans and stupendous designs. They were as children, docile, and teachable, but the alphabet of nature they had not learned.

One of the most interesting and important results of modern research is, that astronomical science is no longer dependent upon mathematics and telescopes for some of its demonstrable facts. By the aid of new optical devices, the chemistry of other worlds is made known; and the chemist of the present epoch speaks as confidently of elements present in the sun, fixed stars, and cometary bodies, as he does of those known to be common to the earth. It seems no less than miraculous that the study of metals can be conducted upon bodies millions of miles distant. These results do not rest upon hypothesis; the assertions of science in this regard are not the imaginings of a wild fancy;

they are *facts*. It is known that upon the sun, a body of ninety-three millions of miles distant, the metal iron is present in vast quantities, in a volatilized condition; and this is known with as much positiveness as it would be if the word "IRON" were written in broad letters across the sun's disc. Several other metals are also known to be present at the sun. Hydrogen forms an important element in the constitution of cometary and nebulous bodies and the fixed stars. It is certain that the stars Sirius and Vega contain it, and it is identical with that of the sun and the earth. There is no doubt that sodium is present at Aldebaran, and magnesium at Capella, and that the metals correspond with those of terrestrial origin. Analysis of meteorites, those bodies which come to us from the regions of space, shows that they are composed of elementary bodies corresponding to those common to our planet. Meteoric bodies are now supposed to come from the stellar spaces, and con-

sequently do not belong to our solar system. If this view be correct, and it probably is, they afford us specimens of bodies moving in that incomprehensible far-off region where are found comets and nebulæ.

The design in what has been stated is to show that throughout the vast universe there is identity of matter and of law; that we have almost positive knowledge that the Almighty has constituted all worlds on the same general plan as our earth, and the materials entering into their structures are similar. If chemists exist upon any of the distant orbs, they must conform essentially to the methods of analysis known to chemists here, as their agents and the reactions would be the same.

In looking "up" to the starry hosts to discover a place adapted to the needs of spiritual beings, we utterly fail to find one. All is *matter*, corresponding with terrestrial matter, and governed by the same

laws. It is not philosophical or rational to suppose that a soul, freed from its material associations here, would seek the same conditions and be subject to the same laws on a body thousands of millions of miles distant. Immaterial spirit cannot be supposed to seek material environment again on another planet, becoming once more a physical organism, to pass once more through the change of death.

For a long time after Maedler's theory of a "central sun" was promulgated, about forty years ago, it was a favorite topic of discourse among "pulpit philosophers." It was assumed that, on that theory, very plausible ideas of a place for the future life could be entertained, and almost the exact locality of "heaven" and the dwelling-place of God pointed out. Maedler asserted as probable that the stars are moving in closed orbits around some central point in the unknown depths of space; and it was at this pivotal point that heaven was located, in the view of many worthy

clergymen. The speculation had at first but slender grounds to rest upon, and it does not at present, so far as we know, receive support from a single distinguished astronomer. It is disproved by observations and calculations which carry irresistible weight.

The attempt so often made to find a material *place* for the departed, originate in a desire to satisfy the earnest longings of the impatient and curious, and also to relieve the advocates of religious systems from the charge that their systems are defective, inasmuch as they leave the soul without a home at the hour of death. These attempts are manifestly based on wrong conceptions of the nature and requirements of the spiritual man, and must be fruitless. Psychical philosophy, as learned from the study of man's dual nature, the analogies of life, the evidence afforded in the instances of the exaltation of the faculties of mind, and a fair interpretation of the hints and declarations

of the founder of the Christian faith, all conspire to show that the future home of the soul is not a *material* world. Matter and spirit are distinct entities, capable of intimate association under the laws and conditions of material life; but when dissociated they require and assume states and conditions totally dissimilar. It is exceedingly difficult for the human mind to conceive of any state distinct from, and unlike the physical state, and all our anticipations, views, and longings even, are based on what we know of actual life here

It has often been hinted and stated in preceding essays that spirit isolated from its physical associations in the body no longer remains under the control of physical laws, but is a law unto itself so far as barriers are involved which impede and limit terrestrial capabilities. It has been stated, — and illustrative instances presented, — that mind, in what I have ventured to designate as its exalted condition, overleaps all physical barriers; that sight,

hearing, touch, taste, smell, all become independent of ordinary physical limitations, and enter upon a new and enlarged field of susceptibilities and capabilities. The idea is (and this has before been stated) that mind or spirit is capable of entering into spiritual relationships, into the new conditions of existence, before its final separation from the body. This implies that all ideas of a *material place* or *locality*, using the terms in the ordinary sense, constituting a future world, must be erroneous and based on the impossible. The exalted mind faculties, in order to enter the future state, are not required to travel, so to speak, billions of miles to find a specific place or kingdom, *but the world of spiritual existences is nigh unto us, and we have only to put out our hands to reach it.*

Among the instances of exalted sensation which have come under my notice during the last third of a century, and which have been subjected to thorough and protracted study and experiment, I recall those of

two ladies of the highest character and social standing. These ladies have frequently, in the trance condition, so called, engaged in conversation with unseen intelligences, alleged to be departed friends, standing near them, whom they asserted they could distinctly see and touch. These scenes, as described by the one and the other, in homes widely separated, were in striking correspondence; and the alleged appearances, the information conveyed, descriptions of the future home, etc., were in such congruous and intelligent accord that the most intense interest was awakened. The results of experiments in like exaltations of mind on the part of others have been found to be uniformly alike where the parties have been of the educated and intelligent class.

The impression, to one intently watching and directing these experiments, is almost that of awe. The conviction is irrepressible, that one is brought into close contiguity with the mysteries of the unseen

life, that the claim on the part of the persons in the exalted sense condition, that they are looking behind the veil, is valid and truthful. It is only, however, within the sacred precincts of well-regulated and orderly homes that such phenomena are observed with any degree of satisfaction.

I have brought to view briefly this class of evidences of the nature and conditions of the future life, and permitted it to have weight, knowing that by many it will be rejected as belonging to fallacies and delusions unworthy of serious consideration. It is of the utmost importance that the scales in which is weighed the evidence regarding alleged new truths should be accurately adjusted, that any dust, due to the imagination, to illusion or trick, should be entirely removed; this careful research demands. It is however of equal importance that, in physical or psychical investigations, the balances should not be obstructed in their movements by obstinate conceits, religious or scientific dogmas, or

in any way influenced by that rigidity of mind which admits of no new truths unless capable of being brought within the domain of mathematics. The history of science in the past twenty years decidedly shows that it is safest and best not to dogmatize too confidently as regards what is or what is not possible. Light breaks in upon the field of knowledge often from unexpected sources.

The unknown world to which mankind are hastening is assumed to be near us. It is a world which we cannot see in our normal state, a world which is uninfluenced by laws which govern matter as we understand them. So long as we do not know what matter is, do not know whether the assumed atoms are held by cohesive attraction, or whether they are only vortices, like smoke-rings, existing in the universal ether, which is itself hypothetical, we cannot safely postulate as regards the actual nature of what we think we see around us. The unknown world close at

hand must be intimately associated with the terrestrial, and the view affords ground for belief that, like man, material worlds are *dual* in their nature. There is no more improbability in the supposition that the spiritual world exists within, and permeates the physical, than that spirit exists within physical man, and permeates the material organism. There are striking analogies brought to view by the supposition, and the thought is of an interesting nature.

As has been shown in the essay on "The Spiritual Man," duality appears to be an order of nature, a law of material and immaterial constitution and construction; and in assuming as an hypothesis that worlds, like man, are dual, consisting of a material and a spiritual domain, we do no violence to observed facts and analogies. There may be in nature but two forms of existing things, so to speak, matter and spirit; and these, in association or separate, control and dominate, under Divine guidance, the universe.

When, in obedience to the universal law of decay and change, our planet reaches its dotage, and is changed, its condition, whatever it may be, whether that of volatilization by heat or that of ice by cold, or whether it disintegrates, and, leaving its orbit, becomes a wanderer in space, in no way will it influence the spiritual world with which it is now allied. That, like spirit in man, is indestructible. The body may be burned by fire while the spirit is present, but the casualty in no way affects the spirit, which resists the action of all agents destructive to the body; and so our planet may be volatilized by heat, and the molecules driven to the remotest bounds of space, but the spiritual home of the world's inhabitants must remain, *will* remain, for it cannot be destroyed.

Spirit is eternal, and so must be the spiritual world, our final habitation. We may reasonably anticipate a time when the spiritual domain will be better under-

stood than at present, for it is impossible that it can be in accordance with the Divine intention that progress shall alone be made in knowledge of physics. A ray of light is already observed darting over the distant hill-tops, and it gives promise of more diffusive beams, which will penetrate the darkness that hides the future world from view.

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